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## SOME CLINICAL OBSERVATIONS ON ARTERIO-SCLEROSIS

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FOR the mass of humanity, life is one unceasing struggle. During the first half of this struggle, our enemies come largely from without. In armies whose strength none can estimate, they camp along our line of march, break through the weak points of our defence, burden us with fears and suffering, cripple and deform where they cannot destroy. During the second half, these external agencies, disordered and discomfited, give up the fight, to a large extent, just as the vital forces begin to show the wear and tear to which they have been subjected, as damage and decay begin to advance just a little more rapidly than the processes of repair. With the second period, we are more especially concerned to-night. Our observations will be confined, in the main, to three classes: physicians and surgeons from fifty to sixty; women from forty-five to sixty; business men from forty-five to sixty-five years of age.

PHYSICIANS AND SURGEONS: That a man is just as old as his arteries, is one of the durable maxims of internal medicine. Almost daily we are reminded of this fact by the tragic death of some member of our own profession. Why should a man in the full vigour of life be cut off by disorders of the circulation, disorders that are more easily prevented than nine-tenths of the so-called preventable diseases? To answer this and other questions, we must study the factors leading to an early breaking-down of the vascular system. Even when due allowance is made for the influence of heredity, an influence that we have no means of estimating accurately, there

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yet remains unexplained a wide disparity in the death-rate from arterial disease.

The following statistics are taken from the report of the Registrar General for the Province of Ontario for the year 1911. They have been compared with those of nine other years and may be considered a fair average.

	Total deaths for year.	Deaths 50-60.	70 and up.
Clergymen.....	61	11.5 per cent.	44.3 per cent.
Barristers.....	33	12 "	33.3 "
Physicians.....	60	33.3 "	21 "
Carpenters.....	308	18 "	31 "
Blacksmiths.....	112	18 "	40 "
Farmers.....	3,229	12 "	50 "

These figures should give us cause for reflection, but not necessarily for alarm, since the measure of a full life is not indicated by years. It will be observed from the above that the toll levied on the medical profession is highest for the decade between fifty and sixty; highest not only for the profession itself, but much the highest when compared with the other professions and the trades generally. It will be noticed, too, that the percentage of deaths for the medical profession for this period is exactly the same as that for the legal profession some twenty years later. From the published statistics, it is impossible to ascertain the causes of this high mortality in the medical profession for this period. I have therefore collected from the obituary notices in representative British, American, and Canadian journals for the year 1911, the causes of death of fifty medical men between the ages of fifty and sixty. It may not surprise you that 70 per cent. of these deaths was due to a breaking down of the cardio-vascular-renal system. The limited number investigated is due to the fact that the cause of death is not always given in obituary notices. While evidence based on such small numbers is not conclusive, it must be regarded as of some value, first, because the diagnosis in these cases would be accurate, and secondly, because the Registrar General's report, above referred to, shows that excluding "old age" and "still born," the mortality from disease of the cardio-vascular-renal system is 18.5 per cent. of the total. In the light of our present knowledge, a diagnosis of chronic interstitial nephritis in most patients past fifty is incomplete.

Another small series of cases is interesting and at least suggestive. Of nine gentlemen known to many of us, who began the study of medicine after thirty-two, and who had previously been



engaged in agricultural or kindred pursuits, seven died of arterio-sclerosis within fifteen years of their graduation, one is living twenty-two years after, but in a condition, from vascular degeneration, scarcely preferable to death, and one, twenty years after graduation, is still in active practice but with a blood pressure rarely below 200 mm. Hg. Are we to regard the development of arterio-sclerosis in these nine gentlemen as a mere coincidence, or are we to regard the undertaking, comparatively late in life, of hard mental work as a special cause of vascular decay? This leads us to ask, what is there in the practice of medicine that causes such a high death-rate of practitioners between the ages of fifty and sixty? Why is it that 79 per cent. of the profession do not run the allotted span? Or again, with regard to those who are our valued helpmates in the profession—the Sisters and nurses—why is the mortality in comparatively early life so high? From the Registrar General's report for 1911, we find that 61.6 per cent. of deaths among the Sisters in our hospitals and other charities, occurred before the age of forty, and that no less than 82 per cent. of deaths among nurses occurred before fifty. Even when we remember that a considerable number of the Sisters die of tuberculosis and that the nursing profession is still in its infancy, we must admit that the mortality, both among Sisters and nurses, is alarmingly high. In an endeavour to find an answer to our questions, let us examine, without too much detail, the everyday life of the general practitioner. Hard mental work is, and always has been, the open sesame of our profession. John Y. Bassett, the Alabama student, immortalized by Osler, writing from Paris in 1836, beautifully expresses this idea, "There is not a solitary great man in France that is idle, for if he were, that moment he would be outstripped; it is a race and there are none so far ahead that they are not pressed by others; many are distanced, it is true, but there are none allowed to walk over the course."

It is a common observation that most men of whatever occupation who lead regular lives, free from excesses of all kinds, as a rule live out their allotted span. It is fair to argue then, that the irregularity of the life of the general practitioner is a potent factor in his early break-down. Physiologists tell us that most men after forty or forty-five take food far beyond the needs of the body. In this respect, medical men are notorious sinners. Over-eating when combined with constipation, induces passive congestion of the abdominal viscera, overfilling the splanchnic reservoir, and autointoxication. The absorption of toxins leads not only



to early degeneration in the circulatory apparatus, but to poisoning of the nervous system. This poisoning shows itself in worry, in neurasthenia, and a vicious circle is thereby established.

With the toxins as a cause in mind, I have been at a loss to understand why phlebo-sclerosis is so much less common than arterio-sclerosis, since the toxins would be present in full strength in the venous blood. Is it due to a difference of work, a difference of structure, or is it a combination of the two? The actual expenditure of energy in mental work is relatively small, but the influence of that expenditure on the organism generally, and on the digestive system particularly, is very considerable. In most of our text-books we are told that hard manual labour by increasing the peripheral resistance, favours the development of arterio-sclerosis. The statistics, so far as Ontario is concerned, do not lend confirmation to this view.

*Observations:* From the statistics quoted, no one can accuse the members of the medical profession of "intruding themselves into the company of posterity."

The large number dying between fifty and sixty must be regarded as a calamity, not only to the profession, but to the world. It is fitting that we should ask ourselves why the mortality among the members of our profession is approximately three times that of the other professions for this period; and having asked the question, it is surely our duty to ourselves, to our homes, to our science, to find the answer.

The limited statistics quoted seem to indicate that 70 per cent. of those dying between fifty and sixty are carried off by what may properly be termed a preventable disease. We cannot longer limit the preventable diseases to those of bacterial origin. Arterio-sclerosis, up to a certain age, must be regarded as a preventable disease.

From the lessons of statistics, from the lessons of everyday life, it is fairly evident that our irregular hours and epicurean appetites are the chief causes in the early development of arterio-sclerosis. The spiritual injunction of St. Paul, "Let a man examine himself," should be taken to heart by the members of the medical profession, at least in a physical sense. How often, in recent years, have men who considered themselves in excellent health been stunned to find they had a blood-pressure well nigh the breaking point? We should not examine ourselves too frequently, however. Over-solicitude leads to introspection. No man can stand a contemplation of his own ailments, real or imagined. So much for the profession.



FEMALES WITH<sup>\*</sup> HYPERTENSION: Total in series, two hundred and fifty. Ages forty-five to sixty.

*Group 1.* Moderate sustained hypertension at climacterium, returning to normal, 67 per cent.

*Group 2.* Hypertension at climacterium, going on to definite sclerosis, 33 per cent.

Of the eighty-two making up Group 2, fifty-five, or 22 per cent. of the total, either lost weight or remained about normal, while twenty-seven, or 11 per cent. of the total, increased in weight (180 lbs. or over), and of the latter, all were heavy feeders, showing a preference for meats and sugars. Let us now study the history of a fairly typical case of each group.

#### GROUP 1.

Mrs. J., aged forty-five. Good family history, except that her father suffered from asthma. She has always been more or less nervous; has a restless eye and a high buccal arch, appetite good, but is afraid to eat, bowels constipated, belches large quantities of gas, suffers from frequent attacks of palpitation, especially at night. Does not sleep well. A trifling noise made by the children "gets on her nerves." Has lost ten lbs. in weight. Menstruation regular. No nocturia. The stomach contents, four hours after an ordinary meal, showed free Hcl. 0.2 per cent. The right kidney could be made out below the costal margin; no pain; urine, no albumin, Sp. Gr. 1015. Haemoglobin 80 per cent. Apex of heart in normal position. Blood pressure 175 mm. Hg. No stiffening of radials or brachials.

She was ordered a generous proteid diet, an alkaline mixture with small doses of sod. brom. and a laxative, to be taken well diluted, one hour after meals. This prescription she took at intervals for two years, at the end of which time menstruation had ceased and blood pressure was normal.

#### GROUP 2.

Mrs. S. came under observation March 4th, 1904, at the age of forty-three. Her illness at this time was similar in all respects to that of the patient whose history has just been given and the same line of treatment was followed. Eighteen months later, she again presented herself. There was no burning in the stomach, though she complained of flatulence and frequent attacks of palpitation, especially at night. When tired, a dragging pain was experienced in the neighbourhood of the right kidney which could be readily palpated. She had lost thirteen lbs. in weight; menstruation had ceased. She complained of headache, largely occipital. The apex of the heart was in the normal position, although the second aortic sound was markedly accentuated. Her blood pressure stood at 190 mm. Hg. She had to rise once or twice during the night to void urine. No albumin, Sp. Gr. 1005.

The proteids were reduced, though white meats, bacon, and a very moderate number of eggs, were allowed. An abdominal bandage was ordered. She was under observation at this time for five months and during this period took iodides with a laxative, small doses of bromide being added occasionally. She regained her lost weight and expressed herself as feeling well. Her blood pressure was now 170. She was advised to stop medicines with the exception of the morning laxative and to lead a quiet life, free from worry, excitement and fatigue.

She again consulted me in April, 1912, or six years later, when the following notes were made: Dizziness and shortness of breath; numbness in left foot and hand; pains in the legs if she walks more than three or four blocks; these were always relieved



by resting for a few minutes and elevating the feet—the “peripheral crisis” of Pal;\* indefinite pains about the joints, described as rheumatic. Has some difficulty in descending stairs; there is much less pain in legs if she comes down backwards. Occipital headache almost constant, frequently wakens her in early morning. The apex is displaced downwards and to the left two inches, second aortic sound accentuated, heart rapid, no murmurs; brachials tortuous. Blood pressure 300. The urine contains a small amount of albumin, with many hyaline and granular casts. Patient died suddenly two months later.

*Observations:* When we consider the histories of these cases of hypertension, two facts seem evident; first, that many women at the climacterium show hypertension, and, secondly, that a certain percentage of these pass on insensibly into definite arterio-sclerosis. In none of the five hundred hypertensives, not even in the advanced sclerotic cases, could headache be said to be a prominent symptom until the appearance of a trace of albumin in the urine. So constant has this relationship been that I am usually able to anticipate the renal involvement.

Approximately 75 per cent. of women over thirty-five years of age, show an increase of blood pressure of from 5 to 10 mm. Hg. for the twelve hours preceding menstruation. About the same percentage under thirty years of age, show no change whatever. The slight increase cannot, therefore, be regarded as physiological.

The period of observation has not been sufficiently extended to form even an approximate idea of the duration of the disease in those of Group 2, who remained about their normal weight; but of those who gained in weight (180 lbs. and over), none have lived three years after decided stiffening of the arteries could be made out.

**BUSINESS MEN:** Number in the series, two hundred and fifty; syphilitics and leadworkers not included. The majority began to show definite hypertension between fifty and fifty-five.

Mr. R. Present age sixty-seven. Came under observation five years ago, complaining of dizziness on any sudden change of position, motor-boat uproar in his ears, some ill-defined numbness in the legs, occasional attacks of abdominal pain, attributed to flatulence, confusion of ideas towards the close of a hard day's work. Some dyspnoea on exertion but never a prominent symptom. Bowels constipated; apex of heart displaced downwards and to the left one and a half inches. Impulse slow, strong and wide-spread. Second aortic sound accentuated; mitral systolic murmur of recent rheumatic origin. No headache. Radials and brachials tortuous: blood pressure 250; urine, no alb., no sugar. Sp. Gr. 1018. Loss of weight seventeen lbs. He was advised to continue his work, but to lessen both responsibility and number of hours. Was allowed fresh fish, bacon, white meats and given pot. iodid., sod. brom., and a laxative until the thumping in his ears was relieved, when the bromide was discontinued. At the end of six months, his blood pressure stood at 180 mm. Hg. The iodide was now discontinued and one dram of mag. sulph. on rising prescribed. The blood pressure was taken each month for the next year, without showing any appreciable variation.

\* J. Pal, *Gefasskrisen*, Leipzig, 1905.



About this time he suffered from a hæmorrhage into his vitreous, and iodide was again given for three months. He then spent several weeks at one of the Ontario springs, drank freely of the laxative waters and, on returning, reported himself much improved. For the past two years, his blood pressure has ranged from 190 to 240. He eats sparingly, takes a glass of mineral water on rising, avoids fatigue, takes frequent holidays, and continues at the head of a large business concern.

*Observations:* Modern methods and modern competition require men to work at high tension and for long hours. Directly or indirectly, the circulatory system bears the brunt of the stress and strain. The pulse tension creeps steadily up. There is increased work thrown on the heart, which in order to maintain a sufficient flow in the capillary beds, daily draws on its reserve forces. There is a limit to reserves as there is to everything else human, and ere long, the irrigation system shows signs of clogging. The heart quickens its speed in a final effort to meet the emergency. For a time this strategic move succeeds, but only for a time. Sooner or later, stagnation shows itself, especially in the abdominal viscera. Imperfect digestion results, bringing in its train putrefactive changes in the bowels, flatulence and other disturbances. The toxins now literally pour into the defenceless life stream and the destruction is well-nigh complete.

*Diagnosis:* When the arteries begin to stiffen, the patient presents many symptoms closely resembling those of neurasthenia. A systematic study of the blood pressure will do much to clear up the diagnosis. The sphygmomanometer is quite as helpful in the diagnosis of vascular and certain neurotic affections, as the stethoscope is in respiratory diseases. We must not be misled by hypertension due to angiospasm so often seen in nervous women at the climacterium. Digital compression in the estimation of blood pressure, no matter how experienced the finger, is untrustworthy.

The size of the arteries differs a good deal in different individuals. If the radials are small, we are too apt to conclude that the heart's work is not being properly performed. We must take the blood pressure and, above all, search for the corroborative evidence.

A low reading does not necessarily mean an absence of sclerosis: the myocardium may be weakening or the general health below normal. The position of the apex of the heart is a valuable sign. It is well to remember, however, that the apex is usually three-quarters to one inch to the left of the point of maximum cardiac impulse. This can be determined by percussion and confirmed by fluoroscopy. If there is tortuosity of a vessel that is usually straight, we may safely infer that there is some degree of arterio-sclerosis. In health, the temporals are tortuous. Before



applying the sphygmomanometer to the arm of a nervous woman, it is advisable to spend a few moments in explaining its use, otherwise a reading altogether too high will be registered, but don't let your patients know too much about blood pressure or blood-pressure instruments or you'll breed a colony of very troublesome neurasthenics.

*General Management:* A careful examination is the first essential in treatment. It quiets useless fears, inspires confidence and gains intelligent coöperation. If a business man, he should relax, but not relinquish, his grip on business, and should take frequent holidays, especially at some of our mineral springs. I am not a Nauheimite, but neither am I blind to the fact that many patients with hypertension and even well-marked arteriosclerosis are greatly benefited by six or eight weeks at the Nauheim Springs. I attribute the "cure" to the laxative waters, the regular hours, the quiet restfulness of the place, the cheery optimism that seems to pervade everything, and, last but by no means least, its reputation as a healing shrine.

In routine practice to-day, too much dependence is placed on vasodilators and iodides. A certain variable degree of hypertension is necessary, and so long as it does not approach too closely the breaking point, it should be left alone. The nitrites may relieve some symptoms for a time, but only for a time. Except in the earliest stages of the disease, I have never seen any permanent benefit from the iodides. With the hippurates as recommended by Oliver of Harrogate, my experience is limited and not altogether favourable. With the preparations of mistletoe, I have as yet had no experience. The splanchnic reservoir is usually over-filled and judicious purgation will do more than anything else to restore the equilibrium. An occasional dose of calomel is often of the greatest advantage. When dilatation of the heart takes place, abstraction of a pint or a pint and a half of blood, will give temporary relief. Hot air baths, by stimulating the action of the skin, will also give temporary relief. Alcohol should be prohibited in all cases and tea and tobacco too, if there are intermittent pains in the calves, relieved by resting. It is better perhaps that the patient should become a vegetarian, as that term is understood to-day. I have for years, however, allowed bacon, fresh fish and white meats in moderation, and apparently with advantage. The mental attitude of the patient must be considered. Too many restrictions are apt to lead to gloomy introspection. We must make life worth living. If we fail in this, we fail in discharging one of the important functions of our high office.



### THREE CASES OF ACROMEGALY WITH ONE AUTOPSY

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CASES showing pronounced disturbances of pituitary function are not common. Woods Hutchinson, in 1898, collected from the literature up to that date two hundred and eighteen cases of acromegaly, some of which were of so remote a date, and the symptoms so ill-defined, that it may have been incorrect to consider them. His article has special reference to the condition of gigantism, which has been shown to be associated with a hypertrophied pituitary, an abnormality which is either congenital or begins before growth is complete, whilst acromegaly is said to be produced by a similar hypertrophy occurring during adult life. The principal findings in the cases of gigantism he was able to present were: (1) Their immense size—between seven and eight feet. (2) Their abnormally short life—averaging twenty-two years. (3) Their poor mental development. (4) Their lack of sexual power. Since his article appeared, many interesting cases of acromegaly have been reported, and much work of an experimental nature has been done on the pituitary gland. A condition of under-functioning of the pituitary gland, as opposed to over-functioning, has also been recognized.

The organ which modern anatomists call the pituitary body or hypophysis cerebri was considered by the ancients to supply a mucous secretion to the nose, hence the origin of the word "pituitary" from the Latin *pituita*, meaning phlegm or mucus. Vesalius in his work, "*De corporis humani fabrica*," published in 1553, called it the "*glans pituitaria excipiens*." The term "*hypophysis cerebri*" was suggested by Soemmering in 1778. Wenzel, in 1810, wrote as follows: "The appendix of the brain seems to play a more important rôle in the human body than one would be inclined to believe." He considered epilepsy as due to disturbances of its functions. In 1886, Pierre Marie, when acting as assistant to Charcot at the Salpêtrière, was the first to point out enlargement



of the pituitary body in the condition which is now known as acromegaly. He reported two cases. Souza Leitte, a pathologist who was associated with Marie in the publication of an article on the subject in 1890, first suggested the word "acromegaly" as a name for this disease.

Within the past three years three cases of acromegaly have been in the wards of the Royal Victoria Hospital, one of which came to autopsy. Through the courtesy of Dr. W. F. Hamilton, in whose service the cases occurred, I have been permitted to give a short synopsis of the clinical notes.

CASE 1. A. B., female, a French-Canadian, aged sixty-one years, occupation charwoman, entered the hospital complaining of headache, weakness, and deformity of features. She was married at the age of nineteen years, and had eleven full-term children. There is a vague history of transient swellings of the neck, legs, and arms about the age of twenty-five, but these symptoms cannot be connected with other facts in her history. The patient also had suffered from neuralgic pains on the right side of her face and neck for many years. It was not until shortly after her menopause, at the age of fifty years, that a change was observed in her features; her nose and lower lip began to gradually enlarge; nearly two years later her tongue began to get longer, and it gradually increased in size until the time of admission, when it was with difficulty retained in the mouth and phonation was almost impossible. About the same time as her features were beginning to be noticeably altered, her hands and feet got larger, and when she entered the hospital they were markedly enlarged. In addition to the deformity of her features, her skin, particularly on her face, became roughened and coarse. A kyphosis of the upper dorsal region was present; her thyroid was not enlarged, and there were no ocular symptoms. Her cardiovascular and respiratory systems showed no abnormality. She left the hospital at the end of a few days before the case could be properly studied.

CASE 2. P. G., female, Galician, aged fifty years, entered the hospital in February, 1910, complaining of change in her features, cough, shortness of breath, weakness, palpitation, pain over the heart. She was born in Galicia, and lived there up to a few years ago. She was troubled with attacks of sore throat and of eye-ache, up to the age of twelve years. Her menstrual periods began at twelve and a half years, and she was as large and fully developed at that age as other girls were at twenty years. She was married at eighteen, and has had ten children. The last was born when she



was thirty-four years old. Her neck began to enlarge when she was ten years old, and it increased in size for two years and then stopped. Her husband had enlargement of his neck, and all their children, shortly after reaching the age of ten years, began to have enlarged necks. Enquiries about her friends and neighbours show that many of them had the same condition (evidently a goitrous district). She had disturbances of menstruation (menorrhagia) two years before the onset of her menopause, which occurred one year ago (at the age of forty-nine). About four years ago she began to have "heavy feelings" in her head which prevented her from sleeping at night. Three years ago, almost coincident with the time of the disturbances of menstruation, her features were noticed to be becoming coarser; then there gradually developed an enlargement of her lower lip and jaw, and her teeth projected, her figure became stooped, and then her hands and feet enlarged. Thirst and polyuria were present during the past year. These changes in her features, figure, and extremities were gradual in their development, occupying about three years.

**PRESENT CONDITION:** There is a marked change in her figure from the tall, slender woman of a few years ago, to the stooped squatty appearance of the present. There is marked enlargement of the thyroid, particularly the left lobe, and it has increased in size during the past few years when her features were changing. There are disturbances of vision. Prior to the onset of symptoms connected with this condition of acromegaly, there were present shortness of breath and palpitation on any exertion, and no improvement has been observed in spite of treatment, in fact it was for the relief of dyspnoea and palpitation that she came to the hospital. Her temperature was ninety-nine, pulse eighty, and respiration twenty to the minute. There was no cyanosis nor oedema. An x-ray taken showed evident enlargement of the sella turcica. She is at present being kept under observation.

**CASE 3.** H. C., female, French-Canadian, aged sixty-four years, married, entered the hospital complaining of shortness of breath, palpitation, lump in throat, deformity. She has always worked hard, most of her life on a farm. Menstruation began at twelve years. She had smallpox at twenty-two years. She was married at thirty-five; two children were born. A gradual enlargement of her throat was noticed when she was about forty years old. Her menopause occurred between forty-eight and fifty, and shortly after an enlargement of her features became noticeable, and then her hands and feet got larger. The finer



movement of her hands, such as required in sewing or knitting, became impaired, and a pronounced stooping of her figure was apparent. Her speech became thick and her tongue enlarged. Headaches and a sense of heat in the eyes were troublesome symptoms. Between five and six years ago, dyspnoea on any exertion was noticed; this symptom, along with swelling of her feet which came on three months ago, has become much worse and caused her to seek hospital relief.

Abstract from clinical notes. A bulky, coarse-featured woman, breathed with difficulty and markedly cyanosed. Her nose and ears were large, long, and broad. Her lips broad, thick, and covered with long coarse hairs. The lower lip protruded. Her teeth were loose and separated considerably from each other. Her tongue seemed too long for her mouth. Her eyes were prominent and the skin of the lower lids puffy. Her sight was impaired, the pupils were pin point, and did not react to light or accommodation. She talked very thickly. There was marked forward bowing of her figure. She could not straighten her back. There was marked generalized enlargement of the thyroid. Her hands and feet were large. Her skin was thickened over her body and covered with coarse hairs. The abdomen was prominent and the feet and legs oedematous. Blood, Hb. 110 per cent., reds 7,380,000, whites 8,000. Urine, normal. Range of vision impaired. The area of cardiac dullness markedly increased, the heart sounds weak and rapid, accompanied by murmurs. The respiratory system showed marked effects from this cardiac change. She died, apparently from heart failure, two weeks after admission.

Abstract from post-mortem findings. Principal lesions: *Enlargement of pituitary body. Hypertrophy of thyroid and adrenals. Acromegaly. Myxoedema of tissues of body. Enlargement of lungs and bronchi. Dilated and hypertrophied heart. Atheromatus changes in blood vessels. Fatty liver. Cysts of kidneys. Adenoma of adrenal. Ascites. Passive congestion of gastro-intestinal tract. Fibrosed and cystic ovaries. Fibroid polyp of uterus.*

Large elderly female, 145 cm. in length, weight about 175 lbs. Skin grimy, coarse and thickened. Lips enlarged and thickened. Nose and ears large. Lower jaw markedly enlarged and teeth loose and widely separated. Hair long and coarse; abundant over the body. Hands large and spade like; fingers enlarged, resemble sausages. Feet enlarged. Abdomen very prominent. Marked thickening of the skin; oedema of the feet, legs and abdomen, with thickening and puffiness of skin of the lower eyelids.



The scalp is scaly, very thick and hard, and loosely adherent to the skull. The latter is considerably thickened, opaque and heavy. The dura strips readily from the skull. The sinuses are greatly engorged, as are also the superficial cerebral vessels. The Sylvian and basilar arteries are atheromatous. The cerebrum weighs 1050 gms., and the cerebellum 155 gms. On section, nothing abnormal is found. The choroid plexus is normal. The sella turcica is greatly widened to accommodate a greatly enlarged pituitary body. The *pituitary* weighs 10 gms. (about twenty times larger than normal) and measures 4 cm. vertically and 2.5 cm. transversely. Two small projections, one on each side, are present about the middle of the growth. It is evident that the enlargement is made up entirely of the anterior lobe; the posterior lobe is normal in size. On section, the growth presents a pale brain-like colour and is uniform throughout. The posterior lobe is hardly discernible, recognized by only a few shreds of tissue attached to the stalk.

Microscopically, sections show a great hypertrophy of the anterior, with compression of the posterior, lobe. In places an adenoma is suggested, but closer examination reveals merely an exaggeration of the normal cellular arrangement. Strands of trabecular tissue, of varying size and distribution, but relatively of small amount, are seen throughout, particularly in the neighbourhood of the blood vessels, which are very abundant, congested, and have slightly thickened walls. The capsule is somewhat thickened. The striking feature about the sections is the entire absence of acidophilic cells; all the cells are basophilic. They are greatly increased in number, and vary in size and activity. The cytoplasm of the majority of the cells is finely granular or reticulated, with a relatively large rounded nucleus, somewhat pale, with deeply staining chromatin granules scattered through it, and a well defined nuclear membrane. In many there is a well marked nucleolus. In places the nucleus is represented by an irregular, incomplete, nuclear membrane and a few granules. Other cells are shown in which the cytoplasm is not so reticulated, but uniformly stained, and the nucleus very deeply stained. The nuclei in these cells are more inclined to be oval or elongated in shape. The posterior lobe shows no abnormality. Choroid plexus sections present an oedematous appearance. The epithelium is swollen. Corpora amylacea are numerous and stain deeply. The blood vessel walls are thickened.

The *thyroid* is greatly enlarged, weight 185 gms. (about six



times larger than normal). It is made up of a number of subdivisions, the left lobe having three lobules and the right two. The isthmus is flattened out. The length of the left lobe is 11 cm., and the greatest width 6 cm.; of the right lobe, 8 cm. and 4 cm. On section these lobules are found to contain rounded masses of different sizes, having a brownish red colour. They can be easily shelled out from the surrounding tissue. There is also present a large number of small cysts of varying size containing colloid material. Some of the lobules contain more than others. Parts of the organ cut with difficulty owing to a calcified change here and there. Parts of the gland show hypertrophy of normal thyroid tissue without adenoma or cyst formation. The parathyroids were not found.

Sections cut from the thyroid consist of a large number of irregularly rounded acini of varying sizes, filled with colloid material. The acini are lined by cells whose cytoplasm is indistinguishable from the colloid, but the nuclei are rounded, and are chromatin-granular or pale, as a rule. Some of the acini nearer the edge of the sections are flattened out, whilst others show little or no lumen. There are a few fairly wide strands of fibrous tissue which stain faintly with Van Gieson. The blood vessels are congested slightly, their walls slightly thickened, and in a few places red blood cells are seen in the acini. In places the fibrous strands may be seen incompletely surrounding groups of acini. The amount of fibrous tissue relative to the rest of the tissue is not great.

The lungs were voluminous, full of blood, cedematous and slightly emphysematous with congestion of the large and small bronchi. Microscopically the acini were dilated and their epithelium denuded. Some contained a few red blood cells and coagulated proteid material. Many had pigment-bearing cells of large size. The blood vessels were congested.

The heart was very large, weight 615 gms. There was extensive thickening of the visceral pericardium over the right ventricle. There was marked dilatation of the cavities and hypertrophy of the whole organ. Sections showed no increase of interstitial fibrous tissue, but much branching of muscle fibre. The muscle nuclei were scanty and pale; some brown pigment was seen in the vicinity of many. The coronaries showed fatty atheroma and the aorta had extensive plates of calcareous degeneration.

The skin of the abdomen was thickened and the subcutaneous fat coarse and abundant. The abdomen contained a large quantity of clear, straw-coloured fluid. The liver was 3 cm. below the costal



border in the right nipple line. The spleen was not visible. The great omentum was coiled over the small intestines. The stomach was large and occupied the greater part of the epigastric space. Its lower border reached the level of the umbilicus.

The liver weighed 1,660 gms. and measured  $26 \times 17 \times 7$  cm. It had several Liebermeister's grooves on the right lobe. There was no increase in fibrous connective tissue. Some areas of what looked like fatty degeneration were present. The blood vessels were greatly congested. The gall bladder was normal. Sections of the liver showed extensive passive congestion, very little fatty infiltration and no increase of connective tissue.

The spleen weighed 235 gms. and measured  $12 \times 8 \times 5$  cm. Its capsule was tense and the organ firm. On section, the Malpighian bodies were conspicuous. The splenic artery was atheromatous. Sections showed a slight increase in the thickness of the capsule, an increase in number of Malpighian bodies, the central vessel thickened and in places tortuous. There was some degeneration of the pulp cells and the splenic channels were greatly dilated.

The kidneys showed a few small cysts on their anterior surface, but apart from this there were no abnormalities. The sections showed cloudy swelling of the epithelium and some oedema. No fibrosis.

The *left adrenal* was bulky. It weighed 18 gms. and measured  $6.4 \times 3.3 \times 1.6$  cm. The differentiation was good. The cortex was pale yellow with scanty pigment. The medulla was spread out in a thin film and was occupied by accessory cortical tissue. In the centre was a rounded nodule 1.4 cm. in diameter and with a creamy, yellow surface.

The *right adrenal* weighed 7 gms. and measured  $5.5 \times 3 \times 0.2$  cm. Its cortex was scanty and pale yellow, pigment layer scanty, and the medulla cavitated.

Sections showed uniform hypertrophy. There was slight thickening of the capsule and parts of the section showed a slight connective tissue increase. The glomerular layer varied in width; on the whole it was somewhat increased. Its cells were large, stained deeply, with large, deep-staining nuclei. The fasciculate and reticulate layers were increased in size; their cells were large and many showed a reticular framework with a large pale-staining nucleus. The chromatin cells were large, and contained a considerable quantity of pigment. Large extra-cortical adenomas were present which presented the same cytological features.

The pancreas weighed 180 gms. and measures  $21 \times 4 \times 1.5$  cm.



Sections showed no fibrous interstitial increase. The islands were small, pale, and not numerous. The blood vessels were congested and dilated. There were a number of large, round, fat spaces to be seen throughout.

The stomach measured  $26 \times 10.5$  cm. It showed an old ulcer, 2.5 cm. in diameter, close to the cardiac orifice on the lesser curvature. Its floor was smooth and its edges sharply defined and red. The surrounding tissues were thickened. The pyloric ring was poorly marked, and there were punctiform hemorrhages in the mucous membrane.

The uterus was quite small, and a small fibrous polypus was attached to the fundus.

The *right ovary* was  $2 \times 1.2 \times 1$  cm. and very firm on section.

The *left ovary* was  $2.2 \times 1 \times 1$  cm. and contained a number of small, thin-walled cysts with clear contents. Sections of the ovaries showed extensive fibrosis.

The bone marrow was soft, pultaceous and maroon coloured.

The following abstract of a report on an acromegalic subject, by O. C. Geddes, M.D., of Edinburgh, is of interest, inasmuch as it practically agrees with our case: Female, aged fifty. The pituitary body weighed 15.55 gms. (the normal weighs on an average 0.5 gms.). The thyroid gland weighed 312 gms., was very large in this case, forming an enormous goitre, which extended below the sternum. The thymus was not enlarged. There were five parathyroids. The suprarenals weighed: right 9 gms., left 9.5. The normal weight is 6 gms. The ovaries and uterus were small. Hence the pituitary was thirty times the normal size and the thyroid ten times; and the suprarenals were increased 50 per cent. The ovaries were apparently functionless. Sections of the pituitary in this case showed that the great increase was due to proliferation of the cells of the anterior lobe. The posterior lobe was apparently normal. The enlargement was due to a simple hyperplasia, not an adenoma. Histologically, the general appearances of the thyroid were those of a parenchymatous goitre. The suprarenals appeared to be normal. The ovaries, for a person of fifty, showed an extensive fibrous change. They would have been normal for a very aged woman, but at her age were indicative of premature senility; corpora lutea were not discovered; and germinal epithelium not present.

COMMENTS. The cases which are outlined above show the inter-relation between some of the ductless glands. Briefly, the outstanding features in the cases were:



CASE I. Married when nineteen years old and became the mother of eleven children. Indefinite swelling of the neck at age of twenty-five years. Onset of acromegaly shortly after menopause. It is presumed that a hyper-functioning of the pituitary occurred here, and it is interesting to note its occurrence after whatever influence the ovaries exert had become to a certain extent quiescent.

CASE II. Thyroid enlargement at the age of ten, gradual enlargement for two years, and commencing again when acromegaly symptoms commenced. Early menstruation, early physical development. Married at eighteen, and mother of ten children, last child born when mother was thirty-four years old. Menstrual disturbance before menopause, and onset of acromegaly about the same time. X-ray photograph showed some widening of sella turcica. Slight ocular disturbances. Presumably hyper-functioning of pituitary with sympathetic thyroid enlargement at a time when ovaries cease to function.

CASE III. Early menstruation (at twelve years); married at thirty-five, two children born. Gradual thyroid enlargement at forty. Acromegaly symptoms shortly after menopause, duration fourteen years. Death from cardio-respiratory failure. Autopsy findings: marked hypertrophy of anterior lobe of pituitary, consisting exclusively of basophilic cells of great activity. Adenocystic colloid change of thyroid, with slight fibrous and calcareous change; marked hypertrophy of adrenals. Marked fibrosis of ovaries with a few small cysts. Hypertrophied and dilated heart; voluminous lungs; myxedema-like changes in skin.

As to the *causation* of acromegaly little is known. Marie was of the opinion that although the disease was accompanied by pituitary enlargement, it was due to a decreased secretion of the pituitary cells. This view has not been held in recent years, the hypertrophy of the gland presupposes increased function—increased secretion—the nature of which is unknown. The evidence is rather conclusive that in the majority of cases of acromegaly and gigantism the pituitary is hypertrophied; when the hypertrophy occurs early in life, before ossification is complete, gigantism is produced; when it occurs after this period, acromegaly is the result. Other interesting features about gigantism are loss of sexual functions, poor mental development, and short period of life. Hypo-functioning or hypo-secretion, on the other hand, when congenital, causes retardation of growth, amounting to infantilism, and when it occurs later in life the condition first described by Frölich occurs: loss of



sexual characteristics, adiposity, etc. As to what part the other ductless glands play in the causation of the respective conditions is unknown. Woods Hutchinson attributes to the pituitary the function of a growth centre regulating the growth of the body.

Extracts of the anterior lobe of the pituitary produce no appreciable effect on injection into the body, but extracts of the posterior lobe, although it is not definitely glandular in structure, produce a rise in blood pressure more prolonged than that obtained from adrenal extracts. Further analogy with the adrenal is shown by the fact that the adrenal has likewise a double origin, nervous and glandular.

There are several *theories* of acromegaly:

1. Marie's, that it is due to decrease of the hypophysial secretion.
2. Majendi and Von Recklinghausen's nervous theory, that it is due to a change in the nervous system.
3. Freund and Campbell's, that it is not a disease, but merely a reversion to a lower type, an anthropoid ape type.
4. Klebs', that it is due to a persistent thymus, particularly an increase in the vascular arrangement.
5. That it is due to disturbances in the organs of generation.
6. That it is due to a diseased condition of the thyroid.
7. That a lesion of the pituitary is not the only cause, but that abnormalities in the internal secretion of the thyroid and genital glands contribute to the causation (Parisot).
8. That it is due to over-secretion of the pituitary.

Without discussing in detail these theories, it may be said that, whilst positive proof has not yet been advanced to show that over-secretion of the pituitary is the cause of acromegaly, yet there is little reason to doubt that this is the cause. Myxoedema is believed to be due to under-activity, and Graves' disease to over-activity, of the thyroid. There is no hesitancy in attributing to the other ductless glands certain well-known disorders, so that it is not unreasonable to attribute acromegaly to abnormality of pituitary secretion, probably over-secretion, and that the condition described by Frölich, and generally termed hypopituitarism, is due to under-secretion of the organ. Furthermore, there exists a number of cases which cannot be classified as due to over—or under—secretion of the pituitary, but which display vague indefinite symptoms suggestive of slight disturbances of the gland.

Further evidence may be offered in support of the over-secretion theory: (1) Experimental removal of the pituitary in



young animals retards growth. (2) Surgical removal of portions of the diseased gland in acromegaly has led to improvement of the symptoms. (3) In acromegaly the pituitary is abnormal, either enlarged, or there is a marked increase in certain cells of the gland.

*Relation Between Pituitary, Sex Organs, Thyroid and Adrenal.*

Clinical and experimental findings have shown that a close relationship exists between the pituitary and the other ductless glands. That the pituitary increases in size in pregnancy has been demonstrated at autopsies following parturition. Erdheim and Stumme find that a third type of cells, which they declare are normally present, more or less indifferent to the acid or basic dyes, increase in number during pregnancy, and fill the strands of the organ. In animals that have been deprived of their ovaries or testicles, the pituitary enlarges. Clinically, cessation of menstruation in the female, and impotence in the male have been observed as initial symptoms of acromegaly. Exner's observations are of great interest; he reports two of Hochinegg's cases of acromegaly, who, after removal of a portion of the hypertrophied pituitary, resumed their menstrual function, which had ceased at the beginning of the disease. Von Eiselberg reports the case of a male, aged twenty years, with symptoms of hypopituitarism, in which the infantile sex organs were a marked feature; successful removal of a pituitary tumour caused genital development one year later. Casey Wood reports the case of a married woman, aged thirty-nine, who consulted him for eye symptoms, and who gave a history of menstruating about once a year since the age of thirty years; an x-ray showed enlargement of the sella turcica.

Atrophy of the sexual organs has followed removal of part or the whole of the pituitary, as reported by the majority of workers. The extraordinary feature about this phase of the question is that sexual functions cease, or are much diminished, in cases where the pituitary shows a hyperplasia or a hypoplasia in adults, whilst if either of these conditions occur before adolescence is reached a condition of infantilism of the sexual organs is produced. Our cases offer corroborative evidence of the intimate relation between the sexual organs and pituitary disturbance. Interesting cases have been recorded where pressure effects on the pituitary have produced symptoms referable to that organ. Reismann reports the case of a woman, aged thirty-two, who failed to menstruate for seven months, with a small uterus and enlarged breasts, and general increase in the size of her body; at autopsy there was found a



malignant cystic swelling at the base of the brain, which pressed upon a normal-looking pituitary, causing disturbance of blood supply, and probably of secretion of the organ. Another interesting observation was made by Schutz, viz., that castrated horses had a pituitary longer and heavier than studs.

*Relation of Pituitary to Thyroid:* Cases II and III in our series illustrate very well the close relationship between the pituitary and thyroid. Rogowitsch found that hypertrophy of the pituitary followed thyroidectomy in dogs and rabbits, and he considered they were closely related in function. Hofmeister arrived at much the same conclusions. Schönemann reported increased formation of colloid material, increased number of chromophiles, and increased blood supply in the pituitary in cases of goitre. Collins, as reported by Tilney, states that "the compensatory or vicarious relation between organs of different functions is a general principle, indicating the retention of some element in their cells which persists in them as a result of a derivation from a common cell type." In the two cases reported by Exner, where the pituitary had been operated upon for the relief of acromegaly, there was found later hypertrophy of the thyroid.

Caselli considered the pituitary to be merely a supplementary thyroid. Woods Hutchinson, in 1898, found in twenty-three cases of acromegaly that the thyroid was enlarged in five, atrophied in seven, and had a normal appearance in eleven.

Boyce has reported two cases of myxoedema each of which was associated with enlargement of the pituitary and atrophy of the thyroid. In nearly all of the experiments which have been performed on animals to show the vital necessity of the organ, this at least has been gained from the work—that the thyroid almost invariably enlarged after pituitary removal. The argument that acromegaly is produced in part by disturbances of the thyroid is nullified by the fact that there are numerous recorded cases of thyroid disturbances of all sorts without the occurrence of a single acromegalic symptom. It would seem that there is a close relationship between the pituitary and the thyroid, and that deficiency in the one is compensated to some extent by the other.

*Relation to Adrenal.* The relationship between the pituitary and the adrenals is of great interest, from the fact of their analogous development, and from the somewhat similar effects produced by injection of extracts of the portion of neural origin. Whilst a number of observations have been recorded to show the relationship of the adrenals and the sex functions, very few are found in



the literature on the relation of the pituitary to the adrenal. Case III of our series showed a remarkable hypertrophy of the adrenals. Geddes in a report of an autopsy on an acromegalic subject—reports enlarged adrenals; in fact, his findings were similar to ours in every particular. The hypertrophied pituitary, the enlarged thyroid and adrenals with atrophied ovaries, forming a close resemblance to our case of acromegaly which came to autopsy. Marengli is authority for the statement that "removal of the adrenals in rabbits causes hypertrophy of the pituitary."

*Is the pituitary essential to life?* With this question in mind, many experiments have been undertaken from Horsley, in 1886, down to the present. Our limited knowledge of the physiology of the organ has been gained from incidental observations made from experiments with this object in view. It is somewhat remindful of the historical aspect of physiology, when nearly every organ of the body was experimented upon with a view of finding out whether it was a vital organ or not. There seems little need for experiments of this kind, for we know that the really vital organs of the body are few, all are to a certain extent essential, but many can be dispensed with if the other organs are allowed a little time to compensate for them. There is a great difference in removing organs for experimental purposes and for pathological reasons. In removing for the latter cause, the other organs of the body have gradually compensated for the diseased member's work; whilst in the experimental work, a great shock is sustained by this sudden removal of a healthy organ, and the other organs are not able to rapidly adjust themselves to the change. Yet, in spite of this handicap, experimenters are able to report that a number of animals of every species experimented on have survived the operation.

As this question has not even yet lost interest (although why it should not have been forgotten long ago, is probably only explicable on the ground that the pituitary was a practically unknown organ), it may be of interest to mention the names of those who have worked on the question: Horsley, Friedmann and Maas, Fichera, Gemelli, Eiselberg, Ascoli, Aschner, Tilney, are amongst those who consider the organ unessential to life; whilst Vassali and Sacchi, Caselli, Pironne, Paulesco, Livon, Gatta, Cushing, Norbout, consider it essential.

Within recent years the organ has been interfered with surgically, and physiological experimental work has been confirmed. Large portions of the organ have been removed, cysts have been



drained, and the patients have survived, and improvement and cure has followed; so that there is very little doubt that this small organ is not a vital centre, and can be removed without a fatal result. The fatalities which occurred in the work of many men, due to shock, hæmorrhage, and infection, and the symptoms which were described as occurring shortly after the removal, were due to sudden interference with its function and to operative trauma.

The writer desires to thank Dr. O. C. Gruner, pathologist to the Royal Victoria Hospital, for permission to study the organs removed at autopsy from Case III.

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DR. ANGLIN, the superintendent of the Provincial Hospital for Nervous Diseases at Fredericton, N.B., is of the opinion that the lunatic is born rather than made. He says: "A true exciting cause is usually hard to find." The number of patients admitted to the hospital during the year was greater than usual—83 men and 79 women. In 91 of these cases more or less definite hereditary taint was known to exist, and in 64 no exciting cause could be recognized. The hospital contains at least one hundred patients more than it is intended to accommodate; on November 1st, 1912, there were in the hospital 302 men and 241 women. During the year 716 patients were treated. Over seven thousand have been admitted to the hospital since it was opened—4,280 men and 3,127 women. Of these, 2,940 were restored to health and 1,218 were more or less improved. The death rate during the past year was 6.14 per cent. ; that is, 44 deaths occurred and 18 of these were upwards of sixty years of age. The cost of maintenance during the year was \$85,212, the per capita cost being \$151.60.



## ABDOMINAL INJURIES

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*Guelph, Ontario*

IN the short paper that I wish to present before this association, I will briefly discuss the diagnosis and treatment of injuries in the abdomen without any wound or apparent injury to the wall of the body. To all the older practitioners I need scarcely say that the methods in vogue twenty-five to forty years ago of dealing with such injuries were purely of an expectant character. No attempt was made surgically to find out what organ was injured or whether anything could be done to repair the injury. In illustration of the method of treatment permit me to refer to an accident that occurred about thirty-five years ago, where a man about forty years of age was kicked on the abdomen by a horse. The only treatment adopted was absolute rest in bed, the head and shoulders elevated, and large doses of opium to control the pain and also to allay the peritonitis which was expected to follow. The issue was fatal in three days. In another case, a man of seventy fell down a stairway. He was partially unconscious when found, and after the lapse of an hour or two began to complain of intense pain in the abdomen. The same treatment was followed also in this case. Death occurred in three or four days. Occasionally, even with this method of treatment, a patient recovered, but the large majority died in a few days.

During the past twenty-five years, as the possibilities of abdominal surgery have become better understood, the method of treating these cases has been completely changed, with very happy results. Instead of an expectant treatment, it is now the established practice for the surgeon to operate as soon as he is convinced that there is a serious lesion within the abdomen. In the large majority of cases, unless called too late, he saves the life of the patient, even in cases of very grave lesions.

Before I proceed farther in this discussion, I wish briefly to relate three cases, which occurred in my own practice.

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Read at the Annual Meeting of the Canadian Medical Association, Edmonton, 1912.



I. A man of sixty stumbled over the edge of a large iron kettle, the rim of which struck him on the left side just below the costal margin. After receiving the injury, he was able to go about, but within two hours the pain became so severe that he was brought to my son's office for advice. Finding evidence of serious internal injury, the doctor sent him at once to St. Joseph's Hospital for further observation. In a few hours it became evident from the weak, irregular pulse that hæmorrhage was going on within the abdomen. Immediate operation was advised, and on opening the abdomen it was found that there was a complete rupture of the spleen, and the abdomen was greatly distended with blood and clots. The spleen was excised, as much of the blood and clot removed as was possible without irrigation, and the abdomen promptly closed, as the condition of the patient would not justify prolongation of the operation. An early, complete recovery followed.

II. A lad of eighteen or nineteen, engaged in a game of football, suffered a severe injury in the abdomen from being struck by the knee of another player. It was fourteen hours afterwards, when I first saw the case in consultation. I found the wall of the abdomen rigid, the temperature  $101^{\circ}$ , pulse over 100, and that the patient had suffered much pain during the night, and had vomited several times. From the history I diagnosed rupture of either the stomach or bowel, the former most probably, as the game was played immediately after the patient had had a hearty meal. However, at operation it was found that it was a portion of the ilium that was ruptured, transversely, about half the circumference of the bowel being torn, with discharge of gas and fæcal matter into the peritoneal cavity. The rent in the bowel was closed, and as clean a toilet was made of the peritoneal cavity as was possible. A large rubber drain was carried down into the cul-de-sac, and the patient's head and shoulders raised after the operation. His recovery was stormy the first three days. The cause no doubt was that the operation was too long delayed after injury.

III. A stout man fell a distance of ten or twelve feet and with him the ladder on which he had been standing. On seeing him half an hour afterwards, he was suffering great pain which he referred to the lower part of the abdomen, and with that pain he had constant desire to void urine. After giving him a full dose of morphine to relieve his great suffering, he was taken to the hospital in a sitting position, and directly to the operating room. After using a catheter, an ounce or two of bloody urine came away, thus confirming the diagnosis previously made of rupture of the bladder. Owing to



the obesity of the patient the incision had to be nearly six inches in length, and before the bladder could be inspected almost the whole of the small bowel had to be lifted out of the abdomen. Then it was found that there was a rent in the summit of the bladder, one and three-quarter inches in length, extending transversely, more towards the left side. The rent was closed by a row of catgut suture through all the coats, and a Lembert suture for the peritoneum. A catheter was kept in the bladder for five or six days, and a long cigarette drain carried down to the cul-de-sac. An early, easy recovery followed the operation.

The three cases I have briefly related were chosen in order upon them to base such remarks as I wish to make on the diagnosis of abdominal injuries. This paper is only intended to deal with such injuries as present symptoms so grave as to raise the question of internal hæmorrhage, perforation, or rupture. Where the symptoms do not indicate gravity it will be perfectly proper to delay for further observation. Cases will occasionally occur when there is room for doubt whether or not a lesion has occurred. The safer course here is to operate, but the surgeon must decide each case on its own symptoms. In cases like those which I have related, the immense importance of an immediate diagnosis is very apparent. Delay in either of these cases would have been disastrous. In the second case, through no fault of mine, the case was delayed six hours after I had advised and insisted upon immediate operation. It was about twenty hours after the accident when the operation was performed, with the result of an extremely narrow escape. In the third case operation followed within four hours, and in the first case within twelve.

**DIAGNOSIS.** If the surgeon is called to the patient immediately after the occurrence of the accident, in severe cases the diagnosis, when some lesion within the abdomen has occurred, can be readily arrived at from the symptoms.

The extreme *pain* in the abdomen complained of by the patient, should receive very serious consideration. Generally speaking there is no movement of the abdomen in respiration, on account of the pain, and any attempt at pressure or percussion greatly increases this pain. In the cases seen early, the *shock* itself bears strong evidence that something serious has occurred. If seen after the lapse of several hours, there may not be any evidence of shock. Consequently, in giving any weight to the presence or absence of shock, the surgeon must bear in mind the number of hours that have elapsed from the time of the accident. In the later cases, if no opium



has been given (and it ought never to be given until a definite diagnosis has been made), *rigidity* of the wall of the abdomen is one of the strongest evidences that a serious lesion has occurred within the abdomen. During the early shock the *pulse* will be feeble, soft, and may or may not be increased in frequency. Later on, say in twenty-four hours, except in the gravest cases, the pulse improves somewhat, becomes more rapid and eventually wiry. During the shock the *temperature* is always one, or two, or three degrees subnormal. As the shock passes away, and peritonitis develops, the temperature may rise to 102° or 103°, to fall again if the case is proceeding to a fatal issue. Let me here add a warning against placing too much reliance upon pulse or temperature. I have known a patient with a temperature of 99°, and pulse of 72 to have the abdomen full of pus from a ruptured gangrenous appendix. In my judgement, though I attach the chief importance to the severity of the pain, degree of shock, and rigidity of the abdominal wall, yet I hold that the diagnosis should not be based on one or two symptoms, but should be arrived at from a careful weighing of all the symptoms.

**TREATMENT.** The treatment is surgical, and every hour of delay counts against the patient in his chances of recovery. After a serious injury involving the abdomen, where the pain is extreme, the wall of the body showing considerable rigidity, the pulse of small volume, with increased frequency, and probably a subnormal temperature, even if no definite diagnosis can be made of the part involved, yet an immediate exploration of the abdominal cavity should be insisted upon. If we wait until the symptoms are sufficiently clear to enable us to say what organ is affected, and what has occurred within the abdomen, the chances are against successful operative interference.

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THE new hospital for mental diseases at Mount Coquitlam, B.C., will be opened very shortly. It is beautifully situated and most attractive in appearance. Measuring four hundred and eighteen feet in length and seventy feet in height, it has accommodation for six hundred and fifty patients. This is the first building of a series which it is intended shall be erected; the land belonging to the institution extends over nine hundred and ninety-eight acres.



## MARCHING

BY COLONEL GUY CARLETON JONES, G.G.H.S., D.G.M.S.

"**M**ARCHING," said Jomini, one of the great writers on the art of war, "is nothing more or less than the science of applying all possible military knowledge." That being so, all the knowledge, military and medical, possessed by the medical officer, must be at the disposal of the officer responsible for the march. He must first recognize the importance of the march and his relation to it. "Marches may be looked upon as the foundation of all operations, and battles the end or result; troops must arrive on the spot where their action is required at the right time and in fighting condition" (Von Schellendorf). It may be said that the present development of the means of locomotion by rail, etc., has made great marches unnecessary. The late Manchurian and the present Balkan war may be referred to as showing this. The troops in Manchuria or in Thrace did not perform great marches. That is true as far as the strategical march is concerned, but it is not true as regards the tactical. Modern war—as demonstrated by these two wars—is characterized by continuous fighting over large and extended areas. The strategical concentration may be effected by rail, but a greater burden of march than ever is thrown upon the troops. The moving is combined with fighting, and the fighting incorporated in the moving. As I quoted before, to arrive on the spot where their action is required at the right time and in fighting condition is as important as ever. It can never be more important—for it is the fundamental fact of the whole art of war.

In Canada strategical marches would have to be made; we have not a network of railways as in Europe. These marches would be severe and would have to be made while troops are raw and untrained. The medical officer must realize the part he has to perform, to assist in bringing the troops into a condition to accomplish whatever strategical or tactical task is assigned to them. The conditioning of these troops will not be an easy matter. Fifty years ago it took Jackson many months of heart-breaking work before he conditioned his raw infantry into his superb foot cavalry;

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Read at the annual meeting of the Association of Officers of the Medical Services of Canada, February 26th, 1913.



but he did it. A hundred years ago, Crauford did the same thing with his famous Light Division in the Peninsular. The first were mobilized civilians, the latter were the supposedly highly trained regulars. It was the personality of these two men that brought about the result. But we can not always rely on personality. It is safer to rely on organization, education, and training.

It is well for us to study this great question of the moving of troops in the strategical and tactical game in which we shall play our part, and this subject touches the medical officer in many ways. The whole object of the Medical Service is to render men more efficient physically; the medical officer should estimate the physical capabilities of the raw recruit and ever see, in his mind's eye, the finished fighting and marching machine that the polished article may become.

The Canadian mobilized army would not be a regular army. It would be a mobilized collection of untrained or partly trained, and in few cases, highly trained, militiamen; excellent raw material to work on—high mentality, splendid physical fitness, and all the characteristics of a free and growing population. Let us each picture to ourselves our several positions, and our various duties, on mobilization. Let us endeavour to realize how this great question of mobility affects us as individual officers. The time given for mobilization may be very short. In Bulgaria the infantry mobilized in six, the cavalry and artillery in twelve, days. It is true that the strategical concentrations may be by train, but every move, even by train, demands a certain amount of marching. The recently mobilized man finds himself under very strange surroundings. He may have been a good militiaman, he may be a crack shot; but here he finds things very different from the camp of training or the rifle range. He may shoot straight, but he will find it hard to march straight when he is burdened by all that is necessary for a soldier to carry, if he is to be of any use. There is no electric car to carry him and his belongings to the butts of the battlefield. A soldier to be self-supporting for one day, must carry a load of, at least, forty-five pounds. He must carry more on the march, about equal to an ordinary suit-case well filled with clothes. There is no porter or boy to carry it on the road leading to glory.

The soldier cannot, and must not, be separated from his armament, his food, or his clothing. If he were, he would soon become useless and a straggler. The weight and character of his armament—i.e., his rifle, his ammunition and bayonet—is governed



entirely by the question of its efficiency, and with that the medical officer has nothing to do. With the carrying of his food, his clothing, and in some cases his shelter, on the march, the medical officer has much to do. He must study the question of rations, and their carriage, of water and its purity, of clothing and its usefulness. The method of carrying of all three,—food, clothing, and shelter—demands medical attention. Physiologically, the human machine will only endure so much strain. It is, therefore, the work of the medical officer to see that that straining point is never reached. It is our work, also, to supervise the means by which, artificially, the anatomical and physiological material of this human machine is perfected, so that the physical powers of the soldier are developed to the highest degree, and his efficiency, as a marcher and a fighter, reaches the point of greatest usefulness to his commander and to his country.

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THE report of the Nova Scotia Hospital for the Insane for the year 1912, gives the following information: the total number of patients under treatment during the year was 639; 210 applications for admission were received, and 181 were accepted. One hundred and forty-one patients were discharged, of whom 67 were considered to have been cured, 21 were classed as "improved," 4 were deported, and 53 were either transferred to county asylums or returned to their homes unimproved; 41 deaths occurred during the year. The cost of maintenance amounted to \$101,790.88. Changes in the staff have been unduly frequent during the year and this has been somewhat of a drawback to the efficient carrying on of the work. The hours are long and the duties difficult, and it would seem that the remuneration is none too great. It is hoped that it will be possible to make the position of nurses and attendants more attractive, and thus induce those who hold these positions to continue their work for a longer period of time.



## Editorial

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### MEDICAL ETHICS AND DR. FRIEDMANN

**I**NEVITABLY there has been much discussion as to whether members of the profession in regular standing, and bodies like the National Association for the Prevention of Tuberculosis, the Royal Edward Institute, and the University of Toronto, have acted wisely in inviting Dr. Friedmann to give in Canada a demonstration of his mode of treatment. Such invitation might well be deemed to imply approval of methods that contravene the code of ethics which should govern medical men in English-speaking countries. Let us say that we fully recognize the difficulties of the position: that those who invited Dr. Friedmann to Canada undertook a heavy responsibility, but, endeavouring to weigh the arguments pro and con, we consider that their action was both politic and humane.

That, from a professional standpoint, Dr. Friedmann has been unwise and ill-advised in his mode of procedure goes without saying. So far as we can learn, he came to this continent without invitation from, communication with, or introductions to any medical body or individual leaders in the practice or science of medicine. His advent heralded, and, since his arrival, his every movement chronicled in the lay press, it is little wonder that he has incurred opprobrium. At the most generous estimate—which, however, from his attitude while in Canada, we believe to be the correct estimate—his conduct has been that of a man so assured of the efficacy of his discovery and of its value, as to expect fully that he would be received with open arms, that the leading hospitals would place their wards at his disposal and the leading physicians



and surgeons rally to the welcome of one who had found the means to overcome humanity's greatest scourge.

It may be that the action of the United States government in itself led him to anticipate a cordial reception; for with the approval, if not the recommendation, of the late president, there has been printed as a Senate publication a full translation of his report last November to the Berlin Medical Society, and of the discussion which followed, forming a State paper of more than fifty pages. It is equally evident that he is not a Pasteur or a Lister: that he was ignorant of, or ignored, the attitude of English—and French—speaking medical men towards the keeping secret and the patenting of remedies. If fellow-countrymen of his, bacteriologists whose names are household words the world over, could so patent and protect their products as to ensure to themselves reasonable remuneration, not to say handsome fortunes, and if the world, apparently, regarded them with no lessened respect, it is probable that he had no expectations of being made a scapegoat, if for a time he kept to himself the exact constituents of his medium. But, making this admission, it is not our fault if we view his actions with disapproval, and if this has been the attitude and he has had a rude awakening, his advisers have been to blame, not the profession in America. If his object is to prevent what is a very delicate preparation, difficult to administer, becoming exploited by opposing firms of wholesale druggists, and to negotiate with governments that they may control the preparation and distribution of his medium, he should have announced this in the pages of the medical press.

What has been the result of these unwise methods? Since his arrival in New York, the lay press from one side of the continent to the other has had daily columns bearing upon Dr. Friedmann, his methods, his results in Berlin, his projected movements and his difficulties. There have been all kinds of rumours regarding State and federal action. All these weeks no reputable body of medical men has ventured



to state that his method is valueless. On the contrary, those bacteriologists most qualified to judge, from the late Dr. Koch downwards, admit that the hope of discovering the means of protection against and cure of tuberculosis lies in the discovery and employment of living tubercle bacilli that are avirulent, and Dr. Friedmann's statement is that he has at last made cultures of tubercle bacilli from a cold-blooded animal, the turtle, which he has found to be absolutely avirulent, and that these form the basis of his inoculations.

It is true that men who are well-known have signed a report pointing out what he cannot do under State and federal laws. Beyond this the medical profession of the United States as a body has left him severely alone, and the consequence has been that throughout this continent those suffering from tuberculosis have gained the impression that here at last is afforded a cure for this terrible disease, but that for some reason which they cannot comprehend, the medical profession is doing its best to hinder the use of it. It is the sanatorium and dispensary physicians and those actively interested in the campaign against tuberculosis, who realize most fully the harm that is being produced by this state of unrest, the piteousness of the appeals that have poured in that they should secure and employ Friedmann's remedy, the widespread discontent caused by evasive, not to say negative, answers to those appeals.

In these circumstances, to alleviate this unrest, to assure the victims of tuberculosis and the general public that our profession, far from being opposed to the discovery of a means of cure, is earnestly anxious to test every method that affords a gleam of hope, the only wise policy was to offer Dr. Friedmann the opportunity to demonstrate the effects of his treatment under conditions such that there could be no reasonable doubts as to the *bona fides* of the tests, or as to the results obtained. It is of not a little interest to note that this conclusion was reached almost simultaneously by the Royal Edward Institute in Montreal, the National



Association for the Prevention of Tuberculosis, and the University of Toronto. Thus it is that before the medical profession Dr. Friedmann has inoculated fifty-six cases of various forms and stages of tuberculosis in Montreal, seventeen cases in Ottawa, and forty cases in Toronto. The National Association has appointed a committee of five to observe the inoculated cases and report upon the results obtained. In from five to seven weeks we are told that a large proportion of those treated will need a second inoculation. It is therefore improbable that this committee can report for two or three months, and until then judgement must be suspended.

To Dr. Friedmann's credit he has refused to enter into negotiations with the United States authorities regarding the details of his vaccine and methods until there has been an official report upon the results of the New York inoculations. Such attitude is not that of an adventurer, but of a man convinced that he can "deliver the goods." We admit willingly, also, that Dr. Friedmann impressed all who came into contact with him during his recent visit to Canada as being a keen, not to say nervous, and sincere laboratory worker, with striking absence of indications of commercialism or worse traits. He appears to be the student and nothing beyond. Saying this we would not absolve him: nor again would we raise false hopes. We believe that he is absolutely convinced of the efficacy of his methods. At the same time we have known men of science to become obsessed, to become so filled with the particular object of their research as to be incapable of judging aright. The next few weeks will show whether this is the case with Dr. Friedmann. In the meantime he has been afforded a fair field and fair play by the Canadian medical profession, and this for the public good.



## PREVENTION OF TUBERCULOSIS

**T**HE annual meeting of the Canadian Association for the Prevention of Tuberculosis held in Ottawa, on the 12th and 13th of March, under the presidency of the Hon. Adam Beck, was notable as being graced by the presence of His Royal Highness, the Duke of Connaught, and by Dr. Friedmann's address upon the principles underlying his treatment of tuberculosis. As a result, despite the brief notice calling the meeting together, there was a larger attendance than on any previous occasion, so much so that the Russell Theatre was engaged for the opening session, while at Dr. Friedmann's demonstration at the General Hospital more than one hundred and fifty medical men were in attendance, including most of the leading specialists in tuberculosis in Canada. His Royal Highness has constantly shown interest in the campaign: once again he manifested that interest by devoting to the association a large portion of one of his last days in Ottawa, prior to his departure for England. In fact, his addresses at the opening session and at the formal opening of the Perley Home constituted his last public utterances prior to what all hope is but a temporary absence from the Dominion.

Sir James Grant took part in the opening meeting, and prefaced the brief and clear paper by Dr. Friedmann on the basal principles of his method, by recalling that in 1861 he had recorded good effects from the employment of ordinary vaccine lymph in the cure of blood poisoning.

In the afternoon His Royal Highness opened the admirable pavilion erected by the Hon. Mr. Perley, in memory of his wife, for the treatment of early cases of tuberculosis, the companion "Lady Grey Hospital" henceforward being employed for advanced cases only.

Other papers given on the evening of the 12th, and the morning of the 13th, were by Dr. Hastings, Medical Health Officer for the city of Toronto, upon the responsibility of the



municipality on tuberculosis problems; by Dr. Richer, Ste. Agathe, on the particulars of the Paterson method of graduated exercises in the treatment of the disease; by Dr. J. H. Elliott upon tuberculosis in childhood; Dr. E. S. Harding, upon the employment of tuberculin in dispensary treatment; and by Dr. J. W. S. McCullough, Chief Health Officer of Ontario, on the tuberculosis problem in Ontario.

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### THE ANNUAL MEETING

**T**HE annual meeting of the Canadian Medical Association will be held in London from June 24th to 27th. The president-elect, Dr. H. A. MacCallum, and the local committee are actively engaged with the arrangements for the meeting. Their spirit and resolution is to make the event a notable one in the history of the association. Members, at the moment, are considering the serious question of their attendance,—and to members at large the question is a serious one. It involves a consumption of time, in many cases a long and expensive railway journey, with provision for carrying on the work of the practitioner during his absence, since a physician in a country district cannot abandon his work as readily as his confrere in the city. To many practitioners this visit to London is all the holiday they may expect. In many cases it must take the place of a visit to the hospitals of some large city for refreshment of knowledge and an experience of new methods of treatment.

The real object of these meetings is not amusement or even entertainment; and in times past the profession in places where the meetings have been held burdened themselves unduly in the attempt to convert the occasion into one of extravagant merry-making. The value of the social advantages must not be underestimated, but they should not be allowed to overshadow all others,—and men can make, and renew acquaintances, in simple and inexpensive surroundings.



The scale of entertainment has been rising from year to year, until now a meeting has become so great a burden that many communities are willing to forgo the honour through dread of the expense. This excessive entertainment, although prompted by the virtue of hospitality, obscures the real value of the occasion; it is too great a burden upon the local men and, to tell the truth, it is a burden upon those who partake of it, especially to the older men, for it is the pleasures of life which make living so tiresome. In this respect Montreal has been the worst offender.

These meetings—and the reference now is to the meetings in general—find their main justification in the advancement of knowledge, in the stimulus and inspiration which they create. The event is too serious a one to be overwhelmed by the contingent. The last meeting at London, at which Dr. MacCallum also presided, was a model of what a meeting should be. The spirit of hospitality hovered over all the proceedings without interfering with them. The general addresses were germane to the subjects; the sections met at the appointed times; they continued to the end; the papers were read by the writers and not merely “by title.” The discussions were full, free, and vigorous, and any tendency to prolixity, and incoherent reminiscence was instantly checked.

For, after all, the discussion is the most important part of the proceedings, if it is authoritative, critical, and born of experience. If that is recognized, men of experience will attend the meetings and yield up freely of their store; and men who are anxious to learn and judge will be only too willing to come together in a general consultation of the profession. Serious men expect to be treated seriously, and it is very discouraging to those who come bringing of their best to feel that their efforts may disarrange plans for an excursion or some other form of entertainment. London in June is one of the most beautiful cities in Canada, and there is diversion enough in walking its shady streets with the chance of meeting an old friend or making a new one.



The general committee has not in the past given sufficient help to the local committee. As a result, the programmes have not been well balanced. They have been overweighted with men whose affiliations were local rather than general, and their experience limited within a narrow range. To read a paper before this association is a privilege, but it has been seized by some and neglected by others to the detriment of all. It would be a proper suggestion to the local committee to make a demand upon the general committee for assistance in arranging the programme. Indeed it is upon the general committee this burden properly falls, and they should not be slow to assume it at least in part.

The Canadian Medical Association in respect of vastness of territory from which its members are drawn, of the proportion which its members bear to the number of those engaged in practice, of the actual attendance of members, and of the material which may be presented, is one of the most important medical societies in the world. It is now strongly established, and free from the control of any section or faction. It is in reality the profession, and it only remains for the profession to use its advantages to the full.

An attractive programme is being arranged for the annual meeting this year. On June 26th two symposia will be held, one on diseases of the stomach, led by Dr. Alexander McPhedran, the other on the thyroid, led by Dr. A. J. Ochsner, of Chicago. Amongst others taking part will be Drs. Stockton, of Buffalo, and Hoover, of Cleveland, and Drs. Halpenny, Olmsted, and Bruce. On the last day clinics will be conducted, the medical by Dr. Frank Billings, the surgical by Dr. John Murphy, of Chicago. The addresses in surgery and in medicine will be given by Dr. Alexander Hutchison and Dr. L. F. Barker, respectively. Another distinguished Canadian from Johns Hopkins who will be present is Dr. Thomas Cullen.

Those desiring to read papers or take part in the symposia are requested to communicate either with the secretary



of the association or with the local secretary, Dr. N. H. Beal, London, as soon as possible.

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### HOSPITAL MATTERS IN SYDNEY

**S**YDNEY has not yet found an answer to the hospital question. Twelve years ago an emergency hospital of thirty beds was established by the Dominion Iron and Steel Company; and it has been maintained by them with the assistance of the usual provincial grant until the present time. This hospital—the Brooklands Hospital—has been used to the limit of its capacity by the general public as well as by the employees of the Steel Company, and, at first, the need for a more adequate hospital was not greatly felt. As the city became larger and the population increased, however, it became evident that a larger institution was needed and that the accommodation provided by the Brooklands Hospital was only sufficient for the employees of the company to whom the hospital belonged. Accordingly, last September, the president of the company intimated that patients, other than the steelworkers, could not be admitted to the hospital after a certain date; he offered at the same time to give the Brooklands property with its building and equipment to a properly organized board of trustees, on the condition that reasonable terms be arranged for the treatment of employees of the company and an assurance given that the work of the hospital be efficiently carried on. The proposal did not meet with the full approval of the civic authorities, who rather favoured the establishment of a separate municipal hospital, and, with this in view, voted the sum of seventy-two thousand dollars. The opinion obtains among many of the medical men of Sydney, that the action of the city council in this matter is open to criticism. The position occupied by the Brooklands Hospital is an ideal one and the best available, and it is understood that, had the offer been accepted, the



Dominion Iron and Steel Company would have given very material assistance to the new hospital. If the municipal hospital is established, the Steel Company will maintain its separate hospital and the municipal institution will lose the revenue that otherwise would come to it in return for the treatment of employees of the company. The matter is not yet settled and perhaps some happy compromise may still be effected.

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### COCAIN IN CANADA

**A**LL civilized countries have statutory enactments which regulate the sale of patent, or proprietary, medicines. At a time when the people had free access to alcohol, no great need was experienced for these restrictions. But with the limitations upon the sale of this convenient and satisfactory intoxicant, it was discovered that the commoner household remedies might be used as a vehicle for its administration. The virtue of the alcohol was imputed to the drug, and remedies began to have an enormous sale in proportion to the amount of alcohol which they contained.

In time the public taste for adulterated alcohol diminished, and resort was had to the more subtle and bizarre intoxicants. New decoctions were manufactured, which were more portable than alcohol. At the same time they were found to be less expensive, equally potable, and more potent, all of which was of great gain, that is, from the manufacturer's point of view. The chief ingredients of these new nostrums were morphin and cocain, two master remedies against pain, as nitric acid is a powerful tooth wash. It is easy to understand how popular these nostrums became. A chorus of praise was heard in every advertisement.

But again serious persons began to doubt the wisdom of relieving pain and obscuring symptoms at the expense of creating the morphin or cocain habits. Legislation was in-



roduced against debauching the people by poisons which were much more insidious and demoralizing than alcohol. Accordingly, in Canada, an Act respecting Proprietary or Patent Medicines was passed. It is known as 7-8 Edward VII, and was assented to July 20th, 1908. By the terms of this Act no proprietary or patent medicine shall be manufactured, imported, exposed, sold, or offered for sale, if it contains cocain or any of its salts or preparations; if it contains alcohol in excess of the amount required as its solvent or preservative, or does not contain sufficient medication to prevent its use as an alcoholic beverage; if it contains any drug which is included under the schedule to the Act, but the name of which is not conspicuously printed on an inseparable part of the label and wrapper of the bottle, box, or other container. This schedule contained a list of thirty-one drugs. If any of these drugs formed a part of the nostrum, the name of such drug must appear on the wrapper. The list did not contain the name "morphin" or "opium," from which it would appear that nostrums containing these substitutes might be sold, as they were not specifically excluded; but on August 17th, 1908, under an order-in-council, morphin and its preparations, opium and its preparations and derivatives, were placed on the list. Patent medicines, even if they contained opium or its derivatives, might then be sold under the regulation. It was provided, however, that the minister might grant a certificate of registration without the printing of the name of any specific drug upon the label, if it appeared to him that the proportion used was not dangerous to the health.

From the above it will appear that patent medicines containing cocain were entirely outlawed. They were specifically excluded. Cocain did not appear upon the schedule. They could not be sold even if the name appeared on the label, nor could the minister permit them to be sold within the terms of the Act.

There are certain conditions, largely neurotic in origin,



accompanied by spasm of the bronchial muscles and turgescence of the mucosa, due to disturbed pneumogastric or vasomotor innervation. To this class belong hay-fever, and asthma, and cocain often gives immediate relief. There is one preparation which is widely known as an asthma cure. According to an analysis made for the *Journal of the American Medical Association*, it contained seven grains of cocain hydro-chlorid to the ounce. The *Lancet's* analysis yielded considerably less. It is especially well known in the United States; one at least of the states specifically forbids its sale. The proprietor has been prosecuted several times, and it must be added that he has prosecuted his opponents for libelling him,—once at least with success.

At the time of the passing of this Act, there was a large importation of this nostrum containing cocain, which was now debarred. The manufacturer felt aggrieved, and, what is more to the point, his victims felt aggrieved too. The manufacturer was only losing prospective profits. His victims were suffering their original pain, and the additional misery of being deprived of the drug which alone could assuage the appetite it had created. When the Act came into force the manufacturer endeavoured to obey it. He removed from his remedy every trace of cocain, but his customers would have none of it. All virtue disappeared with the beloved cocain. They protested with one voice; but he replied that the fault lay with their own government, and he urged them to write to their representatives. Accordingly, members of parliament have been inundated with letters from cocain users, who may also be suffering from asthma, pleading for their drug. We may readily believe that the unfortunate writers are entirely truthful and sincere in their testimony that they are benefited, temporarily at least, by the remedy, and that they cannot do without it. Any drunkard will testify as earnestly in favour of alcohol. As a result of this pressure, instructions have been issued to collectors of customs throughout Canada to permit importations of the nostrum.



With the legal aspects of the case we are not concerned at the moment, although it is worth remarking that there is no provision in the Act which warrants any minister, or the government itself, in breaking it.

We have the utmost of sympathy for sufferers from asthma, and even more, if possible, for sufferers from the cocain habit. At a time when the use of cocain is so widespread, and when the courts are making such desperate efforts to check it, it is an ill-timed procedure,—this flooding of the country with the drug through a legalized channel. Sufferers from asthma have still the services of the profession at their command, and can procure cocain for a legitimate purpose in a legitimate way.

This is clearly the view of the medical profession. The Academy of Medicine in Toronto, at a meeting on March 4th, passed the following resolution:

“Whereas it has come to the knowledge of the Academy of Medicine, Toronto, that the proprietors of an American preparation called Nathan Tucker’s Asthma Specific are trying to induce the Canadian government to allow this preparation to be freely sold to the public, and whereas the Academy is aware that this nostrum contains about five grains of cocain per ounce, the Academy unanimously desires to put on record its strong approval of the ‘Proprietary and Patent Medicine Act,’ as it at present stands in regard to the sale of any cocain-containing medicine to the public. (The Act reads as follows: ‘No proprietary or patent medicine shall be manufactured, imported, exposed, sold or offered for sale if it contains cocain or any of its salts or preparations.’) The danger of the development of the cocain habit is such a great and rapidly growing one that, in the opinion of the Academy, cocain or any preparation containing cocain should only be sold on the written order of a qualified medical man who has personal knowledge of the person requiring the drug. Further, it fully endorses the rule that a prescription for cocain should not be permitted to be dispensed a second time without a fresh order from the physician.”



And the opinion of the profession in Montreal is equally definite, as will be seen from the following resolution:

"The members of the Montreal Medico-Chirurgical Society, a society representing almost all the English-speaking members of the medical profession, have heard with alarm and regret that a patent and proprietary remedy, named Dr. Tucker's Asthma Specific for the cure of asthma, hay fever and nasal catarrh, containing a very considerable amount of cocain, is now permitted to enter Canada, and to be sold without restriction. It is their unanimous opinion that the indiscriminate sale of any remedy containing cocain is fraught with great danger to the general public, and must eventually lead to the unloosening of the very necessary and proper restrictions placed on the sale of cocain by many of the provinces of the Dominion, notably, our own. They, therefore, strongly urge that if the remedy be allowed to enter Canada, it should be obtainable by the public only on the prescription of a registered physician in practice in the neighbourhood, who will be cognizant of the conditions existing in the patient, and the effects produced by the remedy; and that no second supply be obtainable on the one prescription."

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#### HOSPITAL MATTERS IN CALGARY

**H**OSPITAL matters in Calgary have been the subject of a good deal of interest and have been very prominently brought before the eyes of the public during the last few months. The rapid growth of the city necessitates increased accommodation, and the wisest method of procuring this has been warmly debated.

The General Hospital, with a capacity of one hundred and seventy-five beds, is overcrowded, and extensions are urgently needed. The hospital is governed by a board of directors, fourteen in number, seven of which are elected annually by the subscribers and life members, five by the



medical men of the city, and two by the city council. This board applied for a grant from the city of \$150,000 to build a new wing. The city refused to submit a by-law for this, claiming that there was a strong sentiment in favour of a municipally owned and operated hospital, as is the case with the present isolation and smallpox hospitals. A conference was held, and a suggestion that a board composed of six from the city, four from the medical men, and four from the subscribers, be formed to control all hospital matters, the hospitals to be owned and supported by the city but controlled by this board. This was defeated in the city council and a new conference called. This meeting suggested that a board of control be formed who would own the title of all hospitals except private ones and receive from the city what monies it needed for extensions and running expenses; this board to be composed of three members elected by the subscribers, four by the medical men, and six by the citizens, the mayor to be the presiding officer and to have a vote, and also the deciding vote in case of a tie. This is to be submitted to the council and the subscribers of the hospital, and if it meets with their approval, a by-law will be at once submitted. If the grant is given, extensions to provide additional accommodation for one hundred and fifty patients will be made to the Calgary General Hospital.

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THE discovery has been made by Professor Wenck, of the Imperial Institute of Berlin, that tobacco destroys the cholera bacillus. During the cholera epidemic in Hamburg, it was observed that although several of the employees of a large cigar factory had been exposed to infection, none of them contracted the disease. Experiments were undertaken to demonstrate the effect of tobacco on the germs. A cigar was soaked in water containing about two million bacilli to the cubic inch; within twenty-four hours the bacilli were all dead. It was found also that the smoke of tobacco would destroy the germs in from half an hour to two hours.



THE sixty-ninth annual meeting of the American Medico-Psychological Association will be held at the Clifton Hotel, Niagara Falls, from June 10th to June 13th, 1913. The president is Dr. James T. Searcy. The secretary-treasurer is Dr. Charles G. Wagner, Binghamton, N.Y.

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IT is probable that a hospital will be established in the neighbourhood of Clapham Common, London, which will be staffed entirely by women. The idea was originated by Dr. D. M. Chadman. It is thought probable that the hospital will be completed by the summer of 1914.

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BEGINNING with the March number of the current year, the name of the *Public Health Journal* has been changed. It is now the "*Journal of Health, Administration and Sociology*." The journal will continue to be published under the original management and at the same address,—43 Victoria Street, Toronto.

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THE International Congress of Hygiene will meet this year at Buffalo, N.Y. The meeting will be held from August 25th to August 30th, under the presidency of Dr. Charles W. Eliot, president emeritus of Harvard University. The vice-presidents are: Dr. William H. Welch, of Johns Hopkins University, and Dr. Henry P. Walcott, of the Massachusetts Board of Health.

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THE adjourned meeting of the Dominion Medical Council will be held in Ottawa on Tuesday, June 17th, next, when the final arrangements will be completed for the examinations, etc., under the provisions of the Canada Medical Act.

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AN interesting light has been thrown on the question of putrefaction of meat in connexion with cold storage. Researches have been made by M. Piëtre, of Paris, who has concluded that putrefaction is due to a large aerobic, Gram-staining bacterium of the proteus group. Putrefaction consists of ammoniacal and hydrosulphide fermentation, and is



characterized by a like odour and a green colouration of the tissues which are invaded by the organism during the cooling of the carcass. It is desirable, therefore, that meat should be cooled as rapidly as possible and placed in cold storage before it has become tainted.

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AN experiment is being made in South Africa with the object of preventing malaria. A quantity of the small fish known as "millions" are to be introduced from Barbadoes and distributed throughout the fever districts. These "millions" destroy the larvæ of the mosquito and, therefore, are of great value in the prevention of the disease. The freedom from malaria enjoyed by the Barbadoes Islands is attributed to the presence of large numbers of these tiny fish.

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A WELL qualified Christian male physician is required for a new hospital in South China, near Canton, where there is great opportunity for medical work. Other male physicians are needed for Central India, North Korea and North Honan, China. Three nurses also are needed for hospital work in these fields. Unlimited opportunity for Christian medical practice is to be found in these fields in the Orient, where the future medical profession is largely in the hands of the medical missionaries. Apply to the secretaries, Presbyterian Foreign Mission Board, 439 Confederation Life Building, Toronto.

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THE medical profession has too often heard the cry "Lo here, Lo there." Time and again it has gone out in pursuit of some vaunted discovery, and the more it looked the less it saw. The profession may well be pardoned if it retains an attitude of scientific detachment, interested not so much in what Dr. Friedmann says about his discovery of a cure for tuberculosis as in what he can prove. It will not have long to wait. Dr. Friedmann has come to Canada. He has had the opportunity of treating nearly two hundred patients in



Montreal, Ottawa, and Toronto, selected for him to his entire satisfaction. At the time of the present writing there is nothing further to record, and all we can do is to retain an attitude of expectancy and hope.

In these various cities hundreds of medical men witnessed the demonstrations. There was no lack of material. No difficulties, technical or otherwise, were placed in the way of the operator, and subject to a reserve of judgement he was received with a sympathetic curiosity. Possibly there were some who were disappointed that the profession was not more enthusiastic; but no display of enthusiasm would have affected the efficiency of the treatment. The results will be equally convincing in the cold atmosphere of scientific abstraction. In New York, the feeling of the profession was something more than negative. For this state of mind Dr. Friedmann must take all the credit to himself, since he did not choose to operate along the customary channels, and he was not careful to explain why America was so honoured at the expense of Berlin, Paris, and London.

There are now no official keepers of the professional conscience. The members are free, according to the idiosyncrasy of each, to approve, to disapprove, or to remain neutral. The profession is not a trade union, nor is it animated by the spirit of Demetrius. There were, of course, some sensitive souls who turned their eyes away, and found warrant for their excessive holiness in the letter rather than in the spirit of the law. If, in the end, Dr. Friedmann's high claims are proven by the facts, none will rejoice more than the medical profession. If they fail, the profession will not have convicted itself of leading the people astray.

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THE ninety-first annual meeting of the Montreal General Hospital was held February 18th, when the following resolution was unanimously passed: "That from and after January 1st, 1913, no person shall be allowed to continue service on the attending staff of the hospital as physician or surgeon to



the indoor department, or as specialist, or as physician or surgeon to the out-patient department, or as assistant specialist, after having attained the age of sixty-two years." Scant justice is here done to the value of experience, and if a physician should leave the hospital when he attains the age of sixty-two, it may be assumed that he should also leave his patients. At the age of sixty-two a physician is often at his best; therefore the hospital will be deprived of that best. Furthermore, many excellent physicians, whose years are creeping on, may hesitate to join the staff of a hospital where such a rule is enforced.

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AFTER a somewhat lengthy debate, the bill to incorporate the Canadian Medical Protective Association was passed on February 24th, with certain amendments. A good deal of misunderstanding prevailed as to the meaning of certain clauses. In section 2 of the bill, as originally drafted, the objects of the Association are stated to be: (a) to support, maintain, and protect the honour, character, and interest of its members; (b) to encourage honourable practice and assist in the suppression and prosecution of unauthorized practice; (c) to give advice and assistance to and defend and assist in the defence of members of the Association in cases where proceedings of any kind are unjustly brought or threatened against them; (d) to promote and support legislative measures likely to benefit the medical profession. Some difference of opinion was expressed as to the meaning of the words "unauthorized practice"; it was feared by some members that the clause in question was a direct affront on other schools of medicine,—for instance osteopathy, homœopathy, or even Christian Science. After much discussion the clause was amended to read: "To encourage honourable practice of the medical profession." Clause (c) did not meet with unanimous approval, and an amendment was suggested to the effect that advice and assistance should be given only after exoneration by the courts. The motion was lost.



Clause (d) was amended to read: "To promote legislative measures likely to improve the practice of medicine." A further bone of contention was found in section (4) which read: "Until altered or repealed by the Association in general meeting, the existing constitution, by-laws and rules of the said incorporated society, as adopted in August, one thousand nine hundred and one, and amended from time to time subsequent thereto, in so far as they are not contrary to law or to the provisions of this Act, shall be the constitution by-laws and rules of the Association." The following clause was substituted: "The Association in general meeting may from time to time pass rules and by-laws of the said Association, in so far as they are not contrary to law, or to the provisions of this Act, in like manner, alter or amend the same." As the amended clause was practically the same as section 6 of the bill as originally drafted, this section was omitted. An additional clause was also added to the bill; it reads: "Nothing in this Act shall be deemed to encroach upon the rights and privileges conferred upon any other similar association having a charter or which may hereafter have a charter, from the legislature of any province of Canada."

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AN English-speaking conference on the prevention of infant mortality will be held in London under the direction of the National Association for the Prevention of Infant Mortality and for the Welfare of Infancy, on August 4th and 5th, immediately before the International Medical Congress. The meetings will be held in Caxton Hall, Westminster, under the presidency of the Hon. John Burns. The chairman of the English Executive Committee is Sir Thomas Barlow. The subjects for discussion include: The responsibility of central and local authorities in the matter of infant and child hygiene; medical milk problems; the administrative control of the milk supply; the necessity for special education in infant hygiene; and ante-natal hygiene.



### Book Reviews

**ANÆSTHETICS AND THEIR ADMINISTRATION. A TEXT-BOOK FOR MEDICAL AND DENTAL PRACTITIONERS AND STUDENTS.** By SIR FREDERIC W. HEWITT, M.V.O., M.A., M.D. (CANTAB.). Fourth edition prepared with the assistance of HENRY ROBINSON, M.A., M.D., B.C. (CANTAB.). Illustrated. London: Macmillan and Company, Limited. Toronto: The Macmillan Company of Canada, Limited, 1912.

Dr. Hewitt was probably the first in England to give specific attention to the administration of anæsthetics. Before his time the task was usually entrusted to a porter, a nurse, or to the first student whom an operator could lay his hands on. When Dr. Hewitt appeared on the scene—it was in the London Hospital over twenty years ago—some wonder and amusement was created amongst the house surgeons, that any physician should undertake such a queer trade. From that date to this Dr. Hewitt has pursued his specialty, and now is described as Sir Frederic W. Hewitt, anæsthetist to His Majesty the King, and late anæsthetist to His Majesty King Edward VII. The little book which he published about that time has now grown to a volume of nearly seven hundred pages, and it contains everything that is known about the subject. Due prominence is given to the value of chloroform as an anæsthetic, and the means by which it is to be administered are clearly set forth; also the method which was employed by Sir James Simpson of administering it “powerfully and speedily” and the intervening steps to the modern method of giving a small quantity in regulated dosage are given in detail. Full recognition is made of the careful researches of Professor Waller. Indeed Professor Waller himself has revised the chapters on the physiology of anæsthesia, especially in relation to chloroform poisoning.

**BUILDING A PROFITABLE PRACTICE, BEING A TEXT-BOOK ON MEDICAL ECONOMICS.** By THOMAS F. REILLY, M.S., M.D. Philadelphia and London: J. B. Lippincott Company, 1912. Charles Roberts, Montreal.

There is much good sense in this book. The subject is not new, though it appears new to every graduate. Indeed lectures on



the subject were given in the school at Salerno as early as the twelfth century, and from a judicious quotation it would appear that those ancient men were quite expert in the matter of building up a practice: "When the doctor enters the dwelling of his patient he should not appear haughty or covetous, but should greet with kindly, modest demeanour those who are present, and then seating himself near the sick man accept the drink which is offered him, and praise in a few words the beauty of the neighbourhood, the situation of the house and the well-known generosity of the family . . . the fingers should be kept on the pulse at least until the hundredth beat in order to judge its kind and character; the friends standing round will be all the more impressed because of the delay . . . on the way to the sick patient he should question the messenger upon the circumstances and conditions of the illness of the patient; then if not able to make any positive diagnosis he will at least excite the patient's astonishment by his accurate knowledge of the symptoms of the disease. . . . when he quits the patient he should promise him that he will get quite well again, but he should inform his friends that he is very ill."

The work is like a book on etiquette; much in it is a matter of common knowledge to most persons, but the uninstructed will find much to repay them for the reading. The advice is kindly and well meant.

**INTERNAL MEDICINE.** By DAVID BOVAIRD, JR., A.B., M.D.  
With 109 illustrations in the text and 7 coloured plates.  
Philadelphia and London: J. B. Lippincott Company, 1912.  
Charles Roberts, Montreal.

It is always interesting to know why an author writes a book. Dr. Bovaird has set forth his reasons for adding to the number of works on "Internal Medicine." The large treatises are too long he says, and too rich in information for those entering upon the study of medicine, while many of the shorter ones are mere catalogues of fact. His object is to supply the frame-work of internal medicine, allowing the student to complete the structure and add the details. The title is intended to denote those subjects which remain in the older practice of medicine, when all the specialties have been subtracted from it. The book is a handsome volume of over six hundred pages, well printed, and well bound, as all Messrs. Lippincott's books are, but very heavy, as most American books are. It answers truthfully to every test we have been able to employ, and it is sure to find a place for itself in a field which already is overcrowded.



MEDICAL MEN AND THE LAW. A MODERN TREATISE ON THE LEGAL RIGHTS, DUTIES, AND LIABILITIES OF PHYSICIANS AND SURGEONS. By HUGH EMMETT CULBERTSON. Octavo, 325 pages. Price, cloth \$3.00 net. Philadelphia and New York: Lea and Febiger, 1912.

This is a remarkably interesting book; but, when the author affirms that he has "endeavoured to deal with all the main features in the modern law pertaining to physicians and surgeons," it must be understood that he has in mind mainly the law of the United States. We read continually that certain laws are constitutional, or not, as the case may be. In Canada laws are laws without reference to a constitution, because we have none. Each legislature is supreme within its own sphere, and no court is competent to pass upon its measures. The most the courts can do is to decide if the legislature confined its operations within its own sphere. They cannot decide if a law is "reasonable," because a legislature can enact any law it chooses, unless, for example, a law to make a man a woman, or a woman a man. We know nothing of the term "constitutional," which the author continually employs. If a subject feels that he is deprived of his liberty or of protection, he may appeal to the common wisdom and experience of the community, and try to get the law changed, but the courts will not help him. When the legislature says a thing is so, it is so. In these two countries, jurisprudence will differ as their political systems vary. In Canada this book will find its usefulness limited, but it is very valuable as a standard of the practice which prevails in the United States.

THE LABYRINTH. AN AID TO THE STUDY OF INFLAMMATIONS OF THE INTERNAL EAR. By ALFRED BRAUN, M.D., and ISIDORE FRIESNER, M.D. Illustrated. Price, \$4.00 net. New York: Rebman Company.

This book has the distinction which marks all those published by Messrs. Rebman. Upon so restricted an area, so large a work is necessarily very complete. It contains two hundred and fifty pages, with fifty figures in the text and thirty-two plates in half-tone. There are chapters, one each, upon the anatomy, physiology, methods of examination, symptoms of disease, and treatment. The book is most scientific in text and illustration, and quite the most comprehensive of the subject with which it deals. It is one for the specialist, for all specialists in otology, and we hasten to call their attention to it.



HANDBOOK OF DISEASES OF THE RECTUM. By LOUIS J. HIRSCHMAN, M.D. Second edition, revised and rewritten; with 172 illustrations, including coloured plates. Price, \$4.00. St. Louis: C. V. Mosby Company, 1913.

The present edition of this work has been entirely rewritten, forty new illustrations, including two coloured plates, have been added, and the entire book has been reset. As it now stands the book may be accepted as an expression of the best practice in this division of surgery. The author pleads for a more serious consideration of the troublesome and painful ailments associated with the rectum, lest the cases fall into the hands of charlatans. The illustrations are quite remarkable, and the text is adequate. The first edition was issued only five years ago; the second is likely to receive a ready acceptance.

OBSTETRIC AND GYNECOLOGIC NURSING. By EDWARD P. DAVIS, A.M., M.D., Professor of Obstetrics in the Jefferson Medical College, Philadelphia. 12mo volume of 480 pages, fully illustrated. Fourth edition, thoroughly revised. Price, buckram, \$1.75 net. Philadelphia and London: W. B. Saunders Company, 1913. Canadian agents: The J. F. Hartz Company, Limited, Toronto.

We desire again to call attention to this very complete work on the nursing of obstetrical and gynæcological cases, because we think it the most satisfactory book on the subject with which it deals.

GOLDEN RULES OF SURGERY. VOLUME I. OF THE GOLDEN RULE SERIES. ESPECIALLY INTENDED FOR STUDENTS, GENERAL PRACTITIONERS, AND BEGINNERS IN SURGERY. By AUGUSTUS CHARLES BERNAYS, A.M., M.D., F.R.C.S. (Eng.). Second edition, revised and rewritten by WILLIAM THOMAS COUGHLIN, M.D. Octavo, 280 pages; price, \$2.25. St. Louis: C. V. Mosby Company, 1913.

It would be a valuable piece of philanthropy if some wise person were to provide every graduate from a medical school with these Rules of Surgery. If the young graduate were to integrate them into himself he would avoid much mischief. They are the sum of much wisdom and the product of large experience. Besides, they are entertaining. We think the publishers are in error



in stating that Dr. Bernays is a Fellow of the Royal College of Surgeons,—they probably mean “member.”

**PYE'S SURGICAL HANDICRAFT: A MANUAL OF SURGICAL MANIPULATIONS, MINOR SURGERY, AND OTHER MATTERS CONNECTED WITH THE WORK OF HOUSE SURGEONS AND SURGICAL DRESSERS.** Edited and largely rewritten by W. H. CLAYTON-GREENE, B.A., M.B., B.C. (Cantab.), F.R.C.S. (Eng.). Sixth edition, revised and illustrated. Toronto: The Macmillan Company of Canada, Limited, 1912.

All our respect is due to Mr. Clayton-Greene. This is a book to which one turns with fresh delight in every edition, because the original style and spirit have been presented. It is now thirty years since “Pye's Surgical Handicraft” was first published. In those days few men wrote; but those who did write could write: those who could not write left the business alone. Men approached the task as craftsmen with a reverence for their material, and not with the jaunty impudence of so many recent writers, who assume that familiarity with the tools of their trade is ample warrant for using the pen, that most difficult of all implements to handle. Listen to the steady roar of the opening words: “In this book I have endeavoured to describe the details of surgical work as it appears from the point of view of house surgeons and dressers in surgical wards. My aim has been, further, to present this work to them, as to men apprenticed to a skilled labour, in which excellence can only be attained by the acquisition of manual skill or handicraft; for although surgery is becoming more scientific day by day, and although it may even now have come to pass that with the increasing recognition of its higher aims, its manipulative side is unduly overshadowed, nevertheless chirurgery can never be false to its etymology, will never cease, that is, to be a skilled labour, nor will surgeons ever cease to be handicraftsmen.”

**THE BRADSHAW LECTURE ON THE BIOLOGY OF TUMOURS.** Delivered at the Royal College of Surgeons of England on Thursday, December 5th, 1912. By C. MANSELL MOULLIN, M.A., M.D. (Oxon.), F.R.C.S. Price, 2s. net. London: H. K. Lewis, 1913.

This is a real lecture, not a thing manufactured for publication. One hears the speaker's voice in every word, and when the voice is that of Mr. Mansell Moullin, one is sure of hearing something



interesting and well stated. Mr. Mansell Moullin has absolved himself from the particular, and has given a fine philosophical consideration of a subject which is to-day only a little less mysterious than it was in Virchow's times.

**THE ESSENTIALS OF MORBID HISTOLOGY FOR THE USE OF STUDENTS.**  
By ALBERT S. GRUNBAUM, M.A., M.D., F.R.C.P., D.P.H.  
Illustrated. Toronto: The Macmillan Company of Canada, 1912.

This book also is dedicated, "To my wife"; and students, for whom it is intended, are not unlikely to have the calm of their senses and their quiet contemplation of an arid theme, disturbed by this manifestation of uxoriousness. The book follows the lines of Professor Schäfer's "Essentials of Histology," "which the student is assumed"—by the author in his preface—"already to possess and to know." The obvious comment is that, if a student knows all that is in Professor Schäfer's book, he is in possession of all the information he is likely to need for his purposes. With the book itself no fault is to be found. Indeed, in itself, it is a very good book, although unattractive in appearance and badly bound.

**CLINICAL LECTURES ON THE ACUTE ABDOMEN.** By WILLIAM HENRY BATTLE, F.R.C.S. Toronto: The Macmillan Company of Canada, 1913.

What is an "acute abdomen"? Not the most protuberant belly can properly be described as acute: it may be curling and splendid, but not acute. This jargon may do very well for the out-patient's room in St. Thomas's Hospital: it will not do for a journal published even in America, and Canada is in America. And jargon is not confined to the title; it is found throughout the book,— "lower abdomen," "acted after calomel," "the appendages on the left side appeared normal, and were therefore left," will serve as illustrations. If a subject is worth writing about, it is worth while using sufficient words to enable a reader to know, without guessing, what the writer means.



### Books Received

THE following books have been received, and the courtesy of the publishers in sending them is duly acknowledged. Reviews will be made from time to time of books selected from those which have been received.

**GOLDEN RULES OF SURGERY.** Volume I of the Golden Rule Series.

By AUGUSTUS CHARLES BEENAYS, A.M., M.D., F.R.C.S. (ENG.). Second edition revised and rewritten by WILLIAM THOMAS COUGHLIN, M.D. Octavo, 280 pages; price, \$2.25. St. Louis: C. V. Mosby Company, 1913.

**DISEASES OF THE LIVER, GALL-BLADDER AND BILE DUCTS.** By HUMPHRY DAVY ROLLESTON, M.A., M.D. (CANTAB.,) F.R.C.P. Illustrated; price, \$6.50. Toronto: The Macmillan Company of Canada, Limited, 1912.

**THE BLOOD: A GUIDE TO ITS EXAMINATION AND TO THE DIAGNOSIS AND TREATMENT OF ITS DISEASES.** By G. LOVELL GULLAND, M.A., B.Sc., M.D., F.R.C.P.E., AND ALEXANDER GOODALL, M.D., F.R.C.P.E. Illustrated. Toronto: The Macmillan Company of Canada, Limited.

**THE BRADSHAW LECTURE ON THE BIOLOGY OF TUMOURS.** Delivered at the Royal College of Surgeons of England on Thursday, December 5th, 1912. By C. MANSELL MOULLIN, M.A., M.D. (Oxon.), F.R.C.S. Price, 2s. net. London: H. K. Lewis, 1913.

**THE ESSENTIALS OF MORBID HISTOLOGY FOR THE USE OF STUDENTS.** By ALBERT S. GRUNBAUM, M.A., M.D., F.R.C.P., D.P.H. Illustrated. Toronto: The Macmillan Company of Canada, 1912.

**HANDBOOK OF DISEASES OF THE RECTUM.** By LOUIS J. HIRSCHMAN, M.D. Second edition, revised and rewritten; with 172 illustrations, including coloured plates. Price, \$4.00. St. Louis: C. V. Mosby Company, 1913.



- CHLORIDE OF LIME IN SANITATION. By ALBERT H. HOOKER.  
New York: John Wiley & Sons. London: Chapman & Hall, Limited, 1913.
- THE BACTERIAL DISEASES OF RESPIRATION, AND VACCINES IN THEIR TREATMENT. By R. W. ALLEN, M.D., B. S. (Lond.).  
Price, 6s. net. London: H. K. Lewis, 1913.
- CLINICAL LECTURES ON THE ACUTE ABDOMEN. By WILLIAM HENRY BATTLE, F.R.C.S. Toronto: The Macmillan Company of Canada, 1913.
- MODERN WOUND TREATMENT AND THE CONDUCT OF AN OPERATION. By SIR GEORGE T. BEATSON, K.C.B., B.A. (Cantab.), M.D. (Edin.). Price, 2s. net. Edinburgh: E. & S. Livingstone, 1913.
- THE PRACTICE OF OBSTETRICS. DESIGNED FOR THE USE OF STUDENTS AND PRACTITIONERS OF MEDICINE. By J. CLIFTON EDGAR. Fourth, revised edition; illustrated; price, \$6.00 net. Philadelphia: P. Blakiston's Son & Company, 1913.
- HYPERTROPHY OF THE PROSTATE. By W. J. MACDONALD, M.D. 142 pages with 5 descriptive plates. Price, \$2.00. Toronto: D. T. McAinsh & Company, 1913.
- DISEASES OF THE EAR. By RICHARD LAKE, F.R.C.S. 287 pages with 4 coloured plates and 77 illustrations. Fourth edition, revised and enlarged; price \$2.50. Toronto: D. T. McAinsh & Company, 1913.
- CONSUMPTION. ITS CAUSE, PREVENTION AND CURE. Issued by the Anti-Tuberculosis Leagues of the Island of Cape Breton, Nova Scotia. Literary editor, GEORGE H. COX, M.D. London: Eyre & Spottiswoode, 1912.
- ORGANIC AND FUNCTIONAL NERVOUS DISEASES. A TEXT-BOOK OF NEUROLOGY. By M. ALLEN STARR, M.D., Ph.D., LL.D., Sc.D. Fourth edition, enlarged and thoroughly revised; 970 pages with 323 engravings and 30 coloured plates. Cloth, \$6.00 net. Philadelphia and New York: Lea & Febiger, 1913.



## Men and Books

BY SIR WILLIAM OSLER, M.D., F.R.S.

XX. JACQUES BENIGNE WINSLOW. His foramen and his ligament have made at least the name of this great Danish (and French) anatomist familiar to every student of medicine. The chief facts of his busy life are in all the biographies; but he left on record his own story, which has been carefully preserved in the Mazarin Library, Paris, and recently edited by his countryman Vilhelm Maar, to whom I am indebted for a copy. (*L'Autobiographie de Jacques Bénigne Winslow publiée par Vilhelm Maar. Octave Doin and Fils, Paris; Vilhelm Tryde, Copenhagen MCMXII.*)

Born in 1669, the son of a Protestant pastor, and great-nephew of the famous Sténon, Winslow began his studies under the direction of his father, and then proceeded to the Ecole de Saint Canut, from which he passed to the University of Copenhagen, intending to study theology. A new student was made "Civis Academicus" with singular and sometimes brutal formalities by his fellows, and the description he gives reminds one of the ceremonies in vogue when I was a medical student at McGill in connexion with the so-called "footing supper." He soon came under the influence of Caspar Bartolin and Jacobæus, professors in the medical faculty, and deserted theology for the study of anatomy. After graduating he attracted the attention of M. Moth (at the time secretary of state) who had at one time studied medicine, and had been a friend of Sténon, and who arranged a royal travelling fellowship for him.

In 1697, in company with a friend, he proceeded to Holland, where he studied for some time with Bidloo, Ruysch, and Rau. He speaks of the wonderful skill of Ruysch in the preparation of specimens, and was shown two entire bodies of infants perfectly preserved by some secret method. He seems to have seen everything that was of importance in Holland, and was much impressed by the practical advantages offered for the study of anatomy and surgery—"audio, video palpo," he says.

In June, 1698, he arrived in Paris, with which city his life was henceforward to be so intimately associated. Here, under the in-



fluence of Deverney, the well-known anatomist, he devoted his time to dissections and to surgery. But he had always retained an interest in theology, and this was increased by the arrival in Paris of a compatriot, M. Worm, a student of the subject. Several books of the illustrious Bossuet had fallen into Winslow's hands, and he and his young fellow-countryman decided to have a discussion, or conference, on the doctrines of the Roman Church. Winslow took the Roman side, and in the preparation for the discussion became intensely interested in Bossuet. The upshot was that he decided to consult the famous theologian on the subject of his doubts. The most interesting, and a very large, part of the autobiography is taken up with the story of his conversion. After many interviews with Bossuet he was received into the Church of Rome. As a special Danish scholar and a Protestant of note, his conversion attracted a good deal of attention, and the ceremony of his abjuration in the chapel of Germigny was performed in the presence of a number of distinguished people. Bossuet administered the rite of baptism, and added to his name Jaques that of Bénigne. Naturally the news of his conversion upset his family and friends in Denmark, and was a sore grief to his old father, to whom he was deeply attached.

Then began a long struggle for success in Paris. Duverney befriended him, and Bossuet appears to have helped him in every possible way. He was elected physician to the Hôtel Dieu, and in 1710 to the Bicêtre, and in 1721 he was made one of the professors of surgery. Meanwhile, he had devoted himself to the study of anatomy, and in 1732 appeared his well-known "Exposition Anatomique," one of the most popular text-books of the eighteenth century, which was translated into many languages, and raised his reputation to that of one of the first anatomists of Europe. He had the misfortune not to succeed his old teacher Duverney in the chair of anatomy and surgery at the Jardin du Roi. In 1745 he inaugurated the new amphitheatre of anatomy of the faculty, still in existence and known as the amphitheatre of Winslow.

In addition to his well-known "Anatomy," he wrote many monographs, most of which are published in the transactions of the Académie des Sciences. He had not much success as a surgeon or practitioner. With a timid nature he lacked confidence in himself; and mentions in his autobiography that he had an almost insurmountable difficulty in performing even the minor operation of venesection. It is reported that he was so fearful that he would not order two ounces of manna without a prayer. He never returned



to his native land, and even refused to visit the King of Denmark when dangerously ill in 1730.

The autobiography only extends to 1704. It is a pity that so much of it is occupied with theological discussions, some of which were carried on with his father. Winslow was much behind his age in certain matters, and had the old-fashioned idea that certain mental affections were possessions of the devil. He died in 1760, and was buried in the church of Saint-Benoit. His monument at present rests in the court of the Convent of Saint-Etienne du Mont.

Winslow cut a great figure in his day and generation, and had a wide reputation as a teacher and anatomist. It is interesting that his religious career should have somewhat resembled that of his more famous countryman and kinsman, Sténon. He appears to have been, in the words inscribed on this tomb, "*vir æque verax et pius.*"

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A BILL is now under consideration by the Nova Scotia Legislature, to establish municipal sanatoria throughout the province for the treatment of cases of tuberculosis. It is the intention to divide the province into five districts, each with an approximate population of one hundred thousand. A sanatorium will be established in each district and will be in charge of a qualified medical practitioner, who has had at least six months' training in sanatorium and hospital work and who will be appointed by the Public Health Officer. Before admission, each patient will be examined by the physician in charge. The cost of establishing these sanatoria will be borne, half by the provincial government and half by the municipalities, towns, and cities of the districts in which they are placed, and by which they will be maintained. In addition to the sanatoria, clinics are to be provided which will be under the supervision of the local boards of health. An inspector of health will be appointed who will visit these clinics and examine patients. County nurses also will be appointed, whose duty it will be to assist the inspector. Advice will be given to those suffering from tuberculosis, and literature treating of the subject will be distributed; when considered necessary, patients will be sent to the sanatorium for treatment. Thus the clinics will serve as bureaux of information both for the patients and for the health authorities and as "feeders" for the sanatoria.



## Res Judicatae

### BLOOD PRESSURE IN LIFE INSURANCE

UNDER the new regulations, especially in the State of New York, limiting the amount of insurance which any one company can take in a year, the companies are now in the situation of scrutinizing their business most carefully, and none but the choicest lives are considered. Incidentally, the activities of the insurance agent have been much lessened.

The companies are coming more and more to recognize the importance of the blood pressure test in the examination of applicants for insurance. The accurate estimation of the arterial tension is very difficult, if not impossible, even by the most experienced clinician; and it is well-known that a significant degree of early arterio-sclerosis may exist, without showing definite renal or cardiac signs, or any thickening of the peripheral arteries. Consequently, the use of the sphygmomanometer in life insurance has become common during the past five years; and many companies are now trying to get blood pressure reports, especially on applicants over forty years of age.

Statistics are as yet meagre. The best are those of Dr. J. W. Fisher, of the North-Western Mutual Company. He now gets blood pressure reports in about 85 per cent. of his examinations; and a report which he has issued covers the period from August, 1907 to January 1st, 1911, and all the actual deaths to July 1st, 1912. He finds that the average blood pressure of accepted risks for ages fifteen to thirty-nine is 125.2 mm., Hg.; for ages forty to sixty it is 130.17. Every care was taken to trace the subsequent history of the rejected risks, and the work seems to have been thoroughly done.

Tables showing the percentage of actual to expected deaths at the different ages are given, and the general results may be summarized as follows:

1. The total number of accepted risks with blood pressure from 140 to 149 was 2,668. From the general experience of the company the deaths would number 53.065. The actual deaths were 58. The ratio of actual deaths to those expected from the company's general experience was, therefore, 109.3 per cent.



2. There were 525 risks accepted with blood pressure from 150 to 160, an average blood pressure of 152.58. The expected deaths were 13.443; the actual deaths 22, ratio of actual to expected deaths 163.65 per cent.

3. There were 723 rejected risks whose average blood pressure was 171.03 (all ages). According to the company's general experience the deaths expected in this group would be 14.3. The actual deaths traced were 51. The ratio of actual to expected deaths was therefore 376.46 per cent.

In other words, the mortality in all the cases with abnormally high blood pressure was from 9.3 to 276.46 per cent. in excess of the estimated general average of the company during the same period.

These startling results seem to indicate the importance of the use of the sphygmomanometer in life insurance examinations. Great care must be taken, however, to do no injustice to those whose blood pressure is abnormally high from transient causes. Where there is no other impediment to acceptance except high systolic pressure, repeated examinations should be made if possible before coming to a decision. There can be little doubt that careful reports on blood pressure will enable the companies to weed out a dangerous class of risks which are now accepted at the ordinary rates.

T. F. M.

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THE year 1912, has been one of increased activity for the Victoria General Hospital at Halifax. The bacteriological and pathological laboratories have been completed, but the need for enlargement has become more pressing. Not only is additional accommodation for patients wanted, but operation rooms, examination rooms, and x-ray rooms are required. One thousand seven hundred and fifty-two patients were admitted during the year, and the total number treated was one thousand eight hundred and ninety-six. One thousand six hundred and fourteen patients were discharged, and one hundred and twenty-five died; seven hundred and sixty-five operations were performed.



SEVENTEENTH INTERNATIONAL CONGRESS  
OF MEDICINE

THE Seventeenth International Congress of Medicine will be held in London, August 6th to 12th, 1913, under the patronage of His Majesty the King. The Congress will be opened by H.R.H. Prince Arthur of Connaught at 11 a.m. on Wednesday, August 6th, in the Albert Hall. The officers are: president, Sir Thomas Barlow, Bt., K.C.V.O., M.D., F.R.S.; treasurers, G. H. Makins, C.B., F.R.C.S., and Sir Dyce Duckworth, Bt., M.D.; chairman of the executive committee, Sir Alfred Pearce Gould, K.C.V.O., F.R.C.S.; general secretary, Dr. W. P. Herringham, F.R.C.P. The members of the Congress will be (a) qualified members of the medical profession who have made formal application and have paid a subscription of five dollars; (b) scientific men who have been nominated by a national committee or by the executive committee and who have paid the same subscription. The wives and daughters of members will be required to pay half of this fee. Subscriptions should be sent by postal order or cheque to the treasurers, 13 Hinde Street, London, W., and at the same time the section in which each member wishes to be inscribed should be indicated. Application should be accompanied by visiting card giving medical qualifications and address. The steamship companies have offered special facilities to those who attend the Congress. Dr. W. H. B. Aikins, 134 Bloor Street West, Toronto, is the secretary of the Canadian National Committee and will give more detailed information to any one who applies to him. Dr. Aikins has worked unremittingly and the whole profession in Canada owes him a debt of gratitude for his assiduous labour in the common cause.

The following is the arrangement of Canadian representatives: Vice-president, Dr. T. G. Roddick, Montreal; executive committee, Dr. W. H. B. Aikins (secretary, Canadian National Committee), Toronto; Dr. A. McPhedran, Toronto; organizing committee, Dr. George Armstrong, Montreal; Dr. C. K. Clarke, Toronto; Dr. J. C. Connell, Kingston; Dr. H. H. Chown, Winnipeg; Dr. E. P. Lachapelle, Montreal; Dr. F. J. Shepherd, Montreal.

SECTION I—ANATOMY. Council, Dr. J. Playfair McMurrich, University of Toronto.



SECTION II—PHYSIOLOGY. Vice-president, Thomas Gregor Brodie, M.D., F.R.S., University of Toronto; council, Dr. Archibald Byron Macallum, University of Toronto; Dr. Swale Vincent, Manitoba University.

SECTION III—GENERAL PATHOLOGY. Vice-president, Dr. J. G. Adami, McGill University; council, Dr. John Joseph Mackenzie, University of Toronto.

SECTION III—(a) CHEMICAL PATHOLOGY. Council, Dr. John Beresford Leathes, University of Toronto.

SECTION IV—BACTERIOLOGY AND IMMUNITY. Council, Dr. Alfred H. Caulfeild, Toronto; Dr. Gordon Bell, Manitoba University.

SECTION V—THERAPEUTICS. Vice-president, Dr. A. D. Blackader, McGill University; council, Dr. Velyien Ewart Henderson, University of Toronto.

SECTION VI—MEDICINE. Vice-president, Dr. A. McPhedran, University of Toronto; council, Dr. Harry Bertram Anderson, University of Toronto; Dr. F. G. Finley, McGill University; Dr. H. A. McCallum, Western University, London; Dr. James Third, Queen's University, Kingston.

SECTION VII—SURGERY. Vice-president, Dr. F. J. Shepherd, McGill University; council, Dr. Irving Heward Cameron, University of Toronto; Dr. J. Alex. Hutchison, McGill University; Dr. O. M. Jones, Victoria, British Columbia; Dr. Eugene St. Jacques, Laval University, Montreal; Dr. John Stewart, Dalhousie University; Dr. H. T. Williams, Western University, London.

SECTION VII—(a) ORTHOPÆDICS. Council, Dr. Clarence L. Starr, University of Toronto.

SECTION VII—(b) ANÆSTHETICS. Council, Dr. Samuel Johnston, University of Toronto; Dr. Robert A. Stevenson, Toronto.

SECTION VIII—OBSTETRICS. Vice-president, Dr. Adam Henry Wright, University of Toronto.

SECTION IX—OPHTHALMOLOGY. Vice-president, Dr. Richard Andrews Reeve, University of Toronto; council, Dr. J. W. Stirling, McGill University.

SECTION X—DISEASES OF CHILDREN. Council, Dr. Allen Mackenzie Baines, University of Toronto.

SECTION XI—NEUROPATHOLOGY. Council, Dr. D. A. Shirres, McGill University; Dr. Ernest Jones, University of Toronto.

SECTION XII—PSYCHIATRY. Vice-president, Dr. C. K. Clarke, University of Toronto. Council, Dr. T. J. W. Burgess, McGill University; Dr. W. H. Hattie, Nova Scotia Hospital; Dr. Edward Ryan, Queen's University.



SECTION XIII—DERMATOLOGY. Council, Dr. Phillip Burnett, Montreal; Dr. G. G. Campbell, McGill University; Dr. David King Smith, Toronto.

SECTION XIV—UROLOGY. Council, Dr. Edmund E. King, Toronto.

SECTION XV—RHINOLOGY. Vice-president, Dr. J. D. Gibb Wishart, University of Toronto.

SECTION XVI—OTOLOGY. Vice-president, Dr. H. S. Birkett, McGill University.

SECTION XVII—STOMATOLOGY.

SECTION XVIII—HYGIENE. Vice-president, Dr. Charles S. Hodgetts, Ottawa; council, Dr. R. M. Simpson, Winnipeg.

SECTION XIX—FORENSIC MEDICINE. Council, Dr. D. B. McTaggart, McGill University.

SECTION XX—NAVAL AND MILITARY MEDICINE. Vice-president, Colonel Guy Carleton Jones, M.D., Ottawa; council, Lieut.-Colonel J. T. Fotheringham, M.D., Toronto.

SECTION XXI—TROPICAL MEDICINE. Council, Dr. J. L. Todd, McGill University.

SECTION XXII—RADIOLOGY. Council, Dr. F. G. Harrison, University of Toronto.

SECTION XXIII—HISTORY OF MEDICINE. Council, Dr. Andrew Macphail, McGill University.

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#### ASSOCIATION OF OFFICERS OF THE MEDICAL SERVICES OF CANADA

THE annual meeting of the Association of Officers of the Medical Services of Canada was held on February 25th and 26th, at the Chateau Laurier, Ottawa, Lieut.-Colonel A. T. Shillington, M.D., A.M.C., presiding. The meeting was very largely attended, over eighty officers registering.

The morning of Tuesday, the 25th, was devoted to business; during the afternoon the following papers were read: "The Nursing Service," by Nursing Sister Macdonald, P.A.M.C.; Miss Macdonald dealt with the question of the development of the Nursing Service in the Canadian Militia, and advocated the establishment of provisional schools for nurses when they first join the militia. At present they are obliged to go to Halifax. Major Vaux, P.A.M.C., read a paper on the "Collection of the Wounded"; he brought forward the difficult points from a tactical point of view. Dr. Phelan, of Kingston, on the invitation of the Association, presented an able



paper on the "Responsibility of the Insane." An interesting paper was presented by Lieut.-Colonel H. R. Casgrain, 21st Regiment, Windsor, Ont., on the "Military Surgeon"; this paper was discussed by Lieut.-Colonel Bridges, P.A.M.C. and others. The presidential address dealt with many interesting questions. A committee was nominated to report on the recommendations therein contained.

At 8 p.m., the annual dinner was held; speeches were made by the Hon. Sam Hughes, Minister of Militia, Surgeon-General Sir F. W. Borden, Major-General MacKenzie, and others.

The morning of Wednesday, the 26th, was taken up by a discussion on "Marching and the Soldier's Foot," opened by Colonel Jones, D.G.M.S., who treated the subject generally. He demonstrated the use of the new Webb equipment. Capt. Preston, Ottawa, followed, taking the anatomical characteristics of the foot and the prevention and cure of flat foot. Capt. Mackenzie Forbes, Montreal, dealt broadly with the foot and the requisites for a good and useful boot. Lieut.-Colonel Duff, P.A.M.C. and Lieut.-Colonel Bridges dealt with the foot and boot from a military-medical point of view. Major Gardner, Ottawa, took up the question of clothing and showed a model of the "Gardner" serge and collar. A resolution was passed asking the minister to appoint a committee of medical officers to report upon the question of boots.

At one o'clock the president entertained the members at luncheon; speeches were made by Dr. Roche, Minister of the Interior, and Colonel Sam Hughes.

At the afternoon session the following papers were read: "Modern methods of Anæsthesia" Lieut.-Colonel Gorrell; "The efficiency of horses on Active Service in Canada," Lieut. C. H. Higgins, C.A.V.C.; "A Plea for the use of Iodine in the Emergent Treatment of Wounds," Capt. A. E. McColl, 15th Regiment; "Milk Inspection among Garrison Troops," Capt. Chisholm, P.A.M.C.

The convention ended with a theatre party at the Dominion Theatre.

The following officers were elected for the ensuing year: president, Lieut.-Colonel J. T. Fotheringham, M.D., A.M.C., Toronto; vice-presidents, Lieut.-Colonel R. D. Macdonald, Sutton, P.Q.; Lieut.-Colonel H. R. Casgrain, Windsor, Ont.; and Major G. M. Campbell, 7th C. A., Halifax; secretary, Major T. H. Leggett, Ottawa; treasurer, Major F. M. Bell, Ottawa; executive council, Lieut.-Colonel Shillington, Major Wallace Scott, Major D. Whifton, Major R. Law, Major E. Peltier and Major R. Gardner.



### Obituary

DR. HAROLD B. BLANCHARD died from scarlet fever February 22nd, at Columbus, North Dakota, where he had been practising for some time. He was born in Mallorytown, Ontario, and graduated from McGill University in 1907.

DR. D. W. FERRIER, of Toronto, died in the Grace Hospital, February 26th, in the eighty-first year of his age. Death was due to injuries received February 18th, when Dr. Ferrier was knocked down by a street car. He was born in Markham in 1883, and graduated from the medical school of Upper Canada College, more than fifty years ago. He practised in Mount Albert, Pickering, Uxbridge, Markham, and Toronto. Dr. Ferrier was one of the few surviving physicians who obtained their M.D. degree from the old medical school at Cobourg, and one of the oldest practitioners in the country. He belonged to the brotherhood of the Freemasons.

DR. EDWARD PURDEE BUCKE, of London, Ont., died from pneumonia, February 15th, in the thirty-ninth year of his age. Dr. Bucke was well-known and one of the most popular physicians in London, where the greater part of his life was spent. He was born in Sarnia and was the son of the late Dr. F. Morris Bucke, who was for many years superintendent of the London Asylum. He received his early education at the public schools of London, afterwards going to Upper Canada College. Later, he entered the Western Medical College, where he obtained his M.D. degree in 1897. The two years after graduation were spent at Kent Mills, and these were followed by two years in England, devoted to the study of the eye, ear, nose, and throat. He then returned to London to practise his profession. Dr. Bucke was a man with a great future, not in medicine alone, for in the field of literature he had shown unusual promise, and his early death is much to be regretted. He was a keen sportsman and a prominent figure in the social world. He was also greatly interested in amateur theatricals and had proved his dramatic ability on more than one occasion.

DR. EDWARD KITCHEN, of St. George, Man., died February 19th, after a long illness. Dr. Kitchen was one of the oldest and



best known practitioners in the county. He belonged to a pioneer family of South Dumfries and was a graduate of Toronto University. He was examiner for that university for many years and was chairman of the provincial board of health. Dr. Kitchen was a successful practitioner, beloved by his patients, and keenly interested in charitable work of all descriptions. He took a prominent part in municipal affairs, and in politics espoused the Liberal cause. He will long be remembered in South Dumfries as a man of exemplary character and high ideals, whose life was spent in working for the welfare of the community among whom he lived.

DR. WILLIAM V. COOK died at Pasadena, of tuberculosis, February 16th. He was born in Welland County, Ont., in 1857, and for the past sixteen years has practised in Pasadena. He leaves a widow.

DR. JAMES BARCLAY, son of the Rev. James Barclay, D.D., died at Cowansville, Que., February 24th, in the thirty-ninth year of his age. Dr. Barclay graduated from McGill University in 1897; he then served on the staff of the Montreal General Hospital and of the Maternity Hospital, afterwards sailing as surgeon on one of the Elder Dempster boats. In 1901, he was appointed medical inspection officer of the United States Immigration Bureau at Montreal; he was also demonstrator in obstetrics at McGill University. Dr. Barclay was a sportsman and a noted Rugby player. He is survived by his widow.

DR. E. L. RIVERBURG died early in March, from kidney disease. His death took place in Chicago, where he had been practising for the past year. Dr. Riverburg previously resided in Toronto. He leaves a widow.

DR. G. A. PETTIGREW, of Peterborough, died March 4th, in the sixty-eighth year of his age. Death was due to general breakdown.

DR. F. W. BIRKETT, of Ottawa, died March 7th, at Santiago, California, in the thirty-eighth year of his age. He was born in Ottawa, and was the son of Mr. Thomas Birkett. His early education was obtained in Ottawa. Dr. Birkett took his first two years in medicine at McGill University, after which he went to Queen's University, where he obtained his M.D. degree. He then went to Edinburgh, obtaining there his L.R.C.P. and M.R.C.S.



On his return from Scotland, Dr. Birkett commenced his short, but successful professional career in Ottawa, where he practised until four years ago, when he was obliged to give up his work on account of illness. Dr. Birkett's premature death is much regretted. He was a popular and successful practitioner and a good deal of his work—enhanced by his ready sympathy and cheery kindness—was done among the poor, and particularly among children. He was a man of wide interests and a keen sportsman. He was physician to the local fire brigade and surgeon captain to the 43rd Regiment. He leaves a widow and a daughter.

DR. JESSE E. WILSON died March 8th at Rochester, Mich., where he had practised for more than fifty years. Dr. Wilson was born in Ottawa in 1828, and commenced his professional career at St. Thomas in the sixties. He was the brother of the late Senator Wilson, of St. Thomas, and twin brother of the late Dr. Jerry Wilson who died six years ago.

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## News

### MARITIME PROVINCES

FORTY-ONE cases of measles were reported in St. John, N.B., during February. There were also three cases of diphtheria, two of scarlet fever, two of typhoid, and three of tuberculosis. The population is about 42,834. The death rate, from all causes, was 18.55.

AN x-ray apparatus has been installed in the Fredericton Hospital. One of the most urgent requirements now is a modern operating room.

THE annual report of the Chipman Memorial Hospital at St. Stephen, N.B., for 1912, shows that a successful year's work has been accomplished. The number of patients treated during the year was four hundred and eighty.

SEVERAL cases of scarlet fever and diphtheria are reported from Halifax. A discussion took place on February 13th, at a meet-



ing of the board of health, in connexion with a recent case of diphtheria, as to whether patients who are unable to pay should be admitted to the infectious diseases hospital. Dr. Trenaman, the medical officer of health, stated that it was the rule that when a patient was admitted to the hospital an agreement to pay was signed. The question was raised as to whether the medical officer of health had the right to refuse admission to a patient because he was unable to pay. It was decided to obtain the opinion of the city solicitor.

In the annual report of the supervisor of schools at Glace Bay, the medical inspection of the pupils is strongly advocated. As yet no such inspection is made.

THE Amherst Hospital has increased the charge made to public ward patients to five dollars a week. Six or eight more beds are to be added to the present accommodation. During the month of February, 37 patients were admitted to the hospital, 23 were discharged, and one birth took place; no deaths occurred.

SEVERAL cases of diphtheria have occurred at North Sydney. As a preventative measure, some of the places of amusements have been closed; it is thought that at the moment it is unnecessary to close the schools.

### ONTARIO

OTTAWA is looking for a new Health Officer. An experienced medical sanitarian is required, for whom there is offered a salary of five thousand dollars per annum.

A MEETING of the Medical Health Association of Peterborough, was held February 21st, under the presidency of Dr. Amys. Dr. Thompson, of Dawson City, was the guest of the association on this occasion. Papers were read by Dr. Frederick and Dr. Sutton.

ANOTHER cottage is to be added to the Sir Oliver Mowat Hospital at Kingston. It is the gift of Mr. and Mrs. Cornelius Bermingham. The cottage is intended to accommodate four patients in the incipient stage of tuberculosis, and it will cost between four and five thousand dollars. Mr. Bermingham has also promised to give one hundred dollars a year for five years towards maintenance. The hospital has now been in use about five months



and for the last two months every available bed has been requisitioned and patients are even occupying the canvas cottage.

A RESOLUTION was passed by the Association of Officers of the Army Medical Services of Canada, on February 25th, to forward a request to the Minister of Militia, asking that when a lieutenant-colonel of the Army Medical Corps has served his full five years in command and is thereby retired, his time on the reserve shall count towards earning the long service medal. This action was taken because, under the present conditions, an officer can be retired in less than twenty years and have no chance of obtaining the long service medal.

MUNICIPAL abattoirs are being established at Toronto, Berlin and Stratford; and it is probable that one will be established at Brantford.

THE Hopewell Smallpox Hospital on Porter's Island was completed last February. The upper portion of the building contains four wards, each capable of accommodating thirty patients; the ground floor is devoted to administration and living rooms, laundry, morgue, and discharge rooms.

SEVERAL cases of smallpox have occurred at Niagara Falls; in consequence the schools have been closed and an order given that all children be vaccinated before returning to school, unless this had been done within the last seven years.

DR. WILLIAMS, who has been the medical officer of health at Oakville, for the past twenty-seven years, has resigned on account of illness. The position has been filled by Dr. R. O. Fisher, who has been appointed at a salary of twenty-five dollars a year.

SMALLPOX has again broken out in Hamilton. It was thought that the epidemic was over and it had been decided to close the isolation hospital, when several new cases appeared.

THE annual meeting of the Canadian Branch of the St. John Ambulance Association was held at Ottawa, February 24th. The work of the past year has been most successful. The course of instruction was taken by over five thousand men and women, two thousand more than in 1911; a good many of them did not take the



examination although they completed the course of lectures. Almost three thousand certificates were given during the year.

THE car containing the Government Public Health Exhibit left Ottawa, February 19th. A three months' tour of the towns in the province will be made and lectures on public health and preventive medicine will be delivered at the different places. The exhibit possesses a cinematograph and pictures illustrating the lectures will be shown at each place.

DURING the week ending February 15th, 141 deaths occurred in Toronto. Among the contagious diseases reported during the week were: 3 cases of smallpox, 29 of diphtheria, 31 of scarlet fever, 112 of measles, 8 of whooping cough, 3 of typhoid fever, and 19 of tuberculosis.

THE following new appointments have been made to the staff of Toronto University in connexion with the utilization of the public wards of the Western Hospital for teaching purposes. Dr. John Ferguson has been made associate professor of clinical medicine; Dr. S. M. Hay, associate professor of clinical surgery; Dr. A. A. Macdonald, associate professor of gynaecology and obstetrics; Dr. Price Brown, associate professor of ophthalmology and otology. The new arrangement will result in the addition of about two hundred beds to those now available.

A NEW ward for women is to be added to the General and Marine Hospital at Collingwood. The present ward is much too small and both dark and inconvenient. The ladies' board of management has undertaken to collect the necessary funds; they hope to be able to do this within a year.

THE St. Catharines Hospital is to have an x-ray apparatus. An appeal for the necessary funds was made to the citizens and met with a generous response.

A MEETING of the board of directors of the Guelph General Hospital took place February 25th. On this occasion it was decided to ask the city council to submit a by-law to the rate-payers for thirty thousand dollars. Certain repairs and alterations to the hospital are required and it is for this purpose that the request is made. If this by-law is submitted, it will be the third proposal



to assist the hospital which has been made to the ratepayers. The former requests were both refused.

DR. DAWSON has been appointed as medical superintendent of the Isolation and Hopewell Hospitals at Ottawa, at an annual salary of \$1,500 for the first six months, at the end of which period the remuneration will be increased to \$1,800. It is the intention to appoint a house surgeon to assist Dr. Dawson.

THE following cases of infectious disease were reported in Hamilton during the month of February: scarlet fever, 15; diphtheria, 10; smallpox, 32; tuberculosis, 10; chicken-pox, 57; whooping cough, 11; erysipelas, 6; measles, 15; and one case of mumps.

A GENERAL HOSPITAL is to be built at Cochrane; the site has not yet been definitely decided upon. During 1912, one hundred and six births and twenty-six deaths were reported in the town.

AN outbreak of smallpox is reported from Exeter. It appears the disease has been present in the town for some weeks, but was at first thought to be chicken-pox.

ONE thousand two hundred and ten cases of mumps were reported in the province during the month of February; last year, during the same month, there were only one hundred and eleven cases. The following is the list of cases of infectious disease reported during February: smallpox, 145—no deaths; scarlet fever, 311—11 deaths; diphtheria, 169—29 deaths; measles, 1,210—13 deaths; whooping cough, 75—11 deaths; typhoid fever, 47—11 deaths; tuberculosis, 158—96 deaths; infantile paralysis, 2—2 deaths; meningitis, 4—4 deaths.

THE report of the North Bay Hospital for the month of February, gives the following information: patients in hospital, February 1st, 1913, 21; admitted during the month, 43; discharged, 37; deaths, 2; number of hospital days for month, 664.

THE following are the statistics concerning contagious disease in Ottawa during the past year. Scarlet fever, 192 cases reported, 2 deaths; smallpox, 229 cases reported, 2 deaths—both infants; only eight of these patients had been successfully vaccinated, two over thirty years ago, two over fifteen years ago, two ten years ago,



and two eight years ago. Diphtheria, 401 cases reported, 30 deaths; typhoid fever, 1,378 cases reported, 91 deaths.

A GRANT of ten thousand dollars has been made to the Victoria Hospital by the Renfrew town council. It is probable that the hospital will be extended.

THE twenty-third annual report of the Stratford Hospital, furnishes the following information: 634 patients were treated in 1912, the average period of treatment in hospital being 18.64 days; in the maternity ward there were 53 births; the daily cost of maintenance for each patient was \$1.41, sixteen cents more than in 1911.

THERE are eleven cases of smallpox in the Swiss Cottage Hospital at Toronto.

AN addition is to be made to the Oshawa Hospital. The estimated cost is about \$20,000, and the work is to be completed with as little delay as possible.

### QUEBEC

AN outbreak of scarlet fever recently occurred at the Royal Victoria Hospital, Montreal.

AN interesting account of the work accomplished by the Montreal Branch of the Victorian Order of Nurses was given at the annual meeting which took place February 27th. Ninety thousand nine hundred and fifty-five visits were paid by the 61 nurses of the branch, 227 poor families were helped, between two and three thousand articles of clothing were distributed, rent was paid five times and burial expenses four times, and on Christmas Day, 126 dinners were sent out. There are now 232 nurses belonging to the Order in Canada; last year thirteen new branches were opened and 211,544 visits made.

FOUR thousand five hundred and seventy-five patients were treated last year at the Montreal General Hospital, the daily cost for each patient being \$2.12. Three hundred and sixty-eight deaths occurred. In the out-patient department, 16,444 patients were treated and the consultations numbered 71,731. The financial statement showed a deficit of \$34,371. New buildings are in



course of construction and it is hoped that they will be brought to completion before very long.

THE annual meeting of the Lachine General Hospital was held February 20th. The past year has been one of the most successful in the history of the hospital. The new wing is almost completed, the number of patients has increased, 359 having been admitted during the year, and the treasurer's report shows a balance on the right side, the expenses amounted to \$5,596 and the receipts to \$6,085. In the out-door clinic 211 patients received attention.

A MEETING of the Société Médicale de Montréal was held January 21st, when the report for the year 1912 was read by the secretary, Dr. Derome. The society has now attained the thirteenth year of its existence and has a membership of one hundred and ninety.

CASES of smallpox continue to appear in Montreal, and indeed through the province of Quebec. During the week ending February 5th, seven cases were reported, the next week brought fifteen cases and the week after an equal number. Measles also has been very prevalent. During the week ending February 22nd, one hundred and seventy-three cases were reported, eight of which were fatal. During the same week there were sixteen cases of diphtheria resulting in one death, thirty-three cases of scarlet fever and three deaths, and fifty cases of tuberculosis, thirty-one of which were fatal.

THE ambulance question was again referred to at a recent meeting of the Quebec Board of Health. It is hoped that some satisfactory solution of the difficulty may be found.

Quebec is to have a civic hospital and a morgue. It is probable also that a hospital for tuberculosis will be established.

As a protest against the use of cocain, and in view of the proposed revision of the Proprietary and Patent Medicine Act, the following resolution has been passed by the Baptist Men's Association of Montreal: "That if any revision of the Patent or Proprietary Medicine Act of 1908 be undertaken no amendment thereof shall be passed which shall permit the sale or use in Canada of any patent or proprietary medicine which contains cocain or any of the salts of cocain."



THE following resolution was passed at a meeting of the Société Médicale de Québec, which took place December 27th, 1912: "Les membres de cette société ont appris avec surprise le trop modeste traitement accordé aux hygiénistes experts nommés dernièrement par le Conseil d'Hygiène de la Province de Québec. Les devoirs multiples, le perfectionnement qu'on exige d'eux, leur résidence obligatoire dans le chef-lieu du district où ils devront exercer leurs fonctions, la cessation de tout autre travail professionnel, par conséquent de toute autre source de revenus, leur nomination susceptible d'être révoquée à volonté, sont autant de sacrifices qui exigent un traitement au moins en rapport avec leurs multiples devoirs. En conséquence les membres de cette société demandent aux sociétés médicales du district et de se joindre à eux pour prier l'Honorable Premier Ministre et les membres du Conseil d'Hygiène de vouloir bien reconsidérer leur résolution et faire droit à cette juste demande d'offrir aux hygiénistes experts un traitement digne de leurs difficiles et coûteuses fonctions." In the February issue of the *Bulletin Médical de Québec*, Dr. Leclerc analyzes the duties which are exacted of the district inspectors appointed by the Conseil d'Hygiène in return for the modest remuneration of twelve hundred dollars a year.

LAST year 2,293 patients were treated in the Notre Dame Hospital at Montreal, and the number of hospital days was 44,766. In addition, 2,652 persons received treatment at the dispensary. At the St. Paul Hospital, 729 cases of infectious disease were treated, among them being 180 cases of diphtheria, 392 of scarlet fever, 63 of measles, 83 of erysipelas. The average number of days of treatment was 33, and the total number of hospital days was 24,188.

SOME decrease was apparent in the number of cases of smallpox in the province during February, although the number of cases reported was by no means small. The following are the figures: district of Three Rivers, 94 cases; district of Valleyfield, 33 cases; district of Montreal, 18 cases.

THE first annual report of the Mount Sinai Sanitarium at Ste. Agathe has been issued. During the year, fifty-seven patients were admitted; seventeen of these were discharged "greatly improved," and seven discontinued the treatment. The sanitarium was built purely by subscription and is maintained by a society numbering



nearly three thousand members, whose subscriptions amount annually to over thirty-two thousand dollars.

AN immigration detention building is being built on St. Antoine Street, Montreal. The building was commenced last December, and is expected to be completed by December 1st, next. It is being erected by the government under the direction of the Department of Public Works, and is intended for the temporary detention of persons about to be deported. The cost will be approximately \$76,000. The architects of the building are Messrs. Ross and Macdonald of Montreal.

### MANITOBA

A COMMITTEE has been appointed at Brandon to consider the expediency of establishing a municipal abattoir. The first meeting was held February 15th. Some difference of opinion prevailed on this occasion; it was recognized that the existing conditions were not all that could be desired, but the question of cost was somewhat of a stumbling block. As things are at present, it is impossible for the butchers to keep the health regulations; the slaughter houses were built before these laws were made and when the city was very much smaller than it is now. It was decided that the butchers should be asked to prepare a statement of their views on the question, and that two butchers should be appointed to the committee to assist in its further deliberations.

THE sixth annual meeting of the Virden Hospital was held February 18th. The report for the year was a most satisfactory one; the hospital is now free from debt and the per capita daily cost was reduced from \$2.05 in 1911 to \$1.75 in 1912. Two hundred and twenty-three patients were admitted and twelve deaths and five births occurred during the year.

A GRANT of thirty thousand dollars has been made to the Winnipeg General Hospital. This amount will cover last year's maintenance deficit. During the year it was necessary to refuse a great many private patients, as there was no room for them, but all the applicants to the public wards were admitted. This naturally meant a financial loss to the hospital and accounts largely for the deficit. The daily cost for each patient was \$2.48. The charges for private wards have been increased and are now from three to



five dollars; the semi-private patients pay a little more than two dollars a day.

### SASKATCHEWAN

DR. F. R. CHAPMAN has been appointed Medical Health Officer for Saskatoon, at a salary of \$250 a month.

THE old smallpox hospital at Saskatoon is to be moved from its present position and placed near the city hospital. It will be used as a ward for cases of contagious disease.

QUITE a serious outbreak of smallpox occurred at Big River, a hundred miles north of Prince Albert. Practically the whole district was placed under quarantine and every possible means of preventing the spread of the disease was taken. The cases are of the usual mild type and the worst is now thought to be over. Unfortunately, the disease has appeared also in some of the neighbouring lumber camps.

THE plans have been approved for an isolation hospital to be built at Prince Albert. The cost will be about seven thousand dollars.

THE Wolesley Hospital is to be enlarged as soon as the necessary funds can be collected.

A TEMPORARY isolation hospital is to be erected at Wilkie.

### ALBERTA

THE failure on the part of the teachers to detect a recent case of measles in one of the Calgary schools resulted in the appearance of eight other cases of the disease among the children in the school. Such occurrences would seem to indicate the necessity of the medical inspection of children in schools.

THE directors of the High River Hospital make an earnest plea for more financial assistance. They state that it will be impossible for them to carry on the work unless more help is given.

THE Royal Alexandra, and the South Side hospitals of Edmonton, have been amalgamated. The former institution has



become a municipal hospital and its buildings and equipment have been transferred to the city, together with its liabilities. The hospitals will be under the control of a commission—the Edmonton Hospital Commission—which will consist of fifteen members, seven to be chosen from the Board of the Royal Alexandra, three by the university, and five by the city council. No decision has yet been reached concerning the Isolation Hospital. At present, this is a municipal institution under the control of the medical officer of health.

THE provincial government has granted one hundred and fifty-dollars to the Jubilee Hospital at Victoria.

A GRANT of ten thousand dollars has been made by the city council to the Prince Rupert General Hospital.

THE hospital which is to be built at South Edmonton will be a four-storey building, with basement, 150 feet by 50 feet, constructed of structural steel and pressed brick. The cost is estimated at one hundred thousand dollars.

To provide accommodation for patients until the new hospital is completed, a temporary isolation hospital has been built at Regina at a cost of one thousand four hundred dollars. The building is 65 feet by 25 feet, is one storey high, and contains two large wards.

DR. A. H. TAYLOR has been appointed superintendent of the Calgary General Hospital. Dr. Taylor commenced his duties on the first of this month. He is a graduate of Toronto University, having taken his degree in 1910, and has been acting as assistant superintendent of the Toronto General Hospital.

#### BRITISH COLUMBIA

THE medical inspection of pupils is now an important branch of the work done in the Vancouver schools. The medical officer of health is assisted by a staff of nurses, and during the past year 47,260 children have been inspected and 6,879 have been given a careful physical examination. Nearly one thousand visits were made to the homes of children who were unable to attend school on account of illness.



THE Vancouver General Hospital is experiencing unusual difficulty in its financial affairs. While its debts amount to \$42,000, the money owing to the hospital amounts to \$16,000, thus \$26,000 is required to pay off the debts already existing. But more than this is needed—the hospital funds are inadequate to meet the expenses, so that a further source of revenue must be found. Up to the present, the neighbouring municipalities have refused to make a grant, although they send patients to the hospital; and last year over \$7,000 was expended on the maintenance of these patients. However, it is hoped that some mutually satisfactory arrangement may be come to without much further delay. A government investigation of the affairs of the hospital was made last year; the report has not yet been published in full, but no blame was attributed to the directors and it was found that any cause for dissatisfaction that may have existed arose from undue economies exacted by the inadequate provision which had been made to meet the needs of a rapidly growing institution. Three hundred and twenty-five thousand dollars was recently granted to the hospital by the city; this will be expended in building a nurses' home, two units of the isolation hospital, and a service building. A new wing was added to the hospital last year and is almost completed. When this is finished, there will be three hundred and seventy-five beds in the main building. The number of hospital days during 1912 was 106,908 and the number of patients treated 5,231. The per capita cost of maintenance was \$1.98, slightly more than in 1911, when it was \$1.75. Three hundred and sixty-seven deaths occurred, a percentage of 7.02, and 2,335 operations were performed.

DR. F. F. WESBROOK, dean of the faculty of medicine of the University of Minnesota, has been appointed president of the University of British Columbia. Dr. Westbrook was born in Brant County, Ontario, and is a graduate of the University of Manitoba; he will take up his new duties early in May. It is expected that classes will be held next summer, but the university buildings which are being erected at Point Grey will not be ready until the end of next year.

Six patients were treated in the Quesnel Hospital during January.

A NEW building is to be constructed on the site of the present Kootenay Lake General Hospital.



THE fourteenth annual meeting of the Chemainus General Hospital Association was held February 11th, when a satisfactory report of the year's work was read. The number of hospital days during the year was two thousand five hundred and thirty-five.

DR. C. A. GRAVES, of Prince Rupert, has been appointed permanent medical officer of the Masset band of Indians.

THE annual meeting of the Royal Inland Hospital was held February 26th. The new building was completed last September, and formally opened by H. R. H. the Duke of Connaught, on the seventeenth of that month. The financial statement for the year ending January 31st, 1913, shows a deficit of \$3,326.80. The daily cost of maintenance has increased during the year from \$1.88 to \$2.07 for each patient, and this, together with the increase in salaries, accounts for the overdraft. The new building cost approximately \$110,000 and the equipment \$10,000. The old hospital site was sold for \$11,500, but there is still a balance of \$36,000 to be paid. The provincial government has promised to grant \$15,000, so that the amount still to be paid off on the building is in reality \$21,000. An effort will be made to collect this money by private subscription. During the past year, 1,130 patients were admitted, and the hospital days numbered 21,108; during the previous year, 931 patients were admitted and the number of hospital days was 15,816.

A PROVINCIAL grant of \$2,500 has been made to the Merritt Hospital. Grants have also been made to the hospitals at Harrison Hot Springs, and at Ashcroft.

AN effort to collect \$50,000 is being made by the Royal Margarete Club at Vancouver. If subscribed, the money will be expended on equipment for the addition which is being made to the St. Paul Hospital. This hospital was established in 1894 by the Sisters of Charity of Providence. It is devoted to charitable work of every kind and the great majority of patients treated are of the indigent class.

A MEETING was held, on March 4th, of the New Westminster Hospital Board to consider the equipment of the Royal Columbian Hospital which is in course of construction. As the money to erect the new building has been provided partly by the city, which subscribed \$130,000, and partly by the provincial government, which



subscribed \$100,000, and as during 1911 and 1912 five hundred and twenty-five patients from the neighbouring municipalities were admitted to the hospital, it was felt that the \$30,000 required for equipment should be contributed by these municipalities.

DR. RICHARD PORT has been appointed medical officer of health at Mission City.

### NEWFOUNDLAND

SMALLPOX is reported from Barren Island. The disease has been prevalent for some little time but its exact nature was not known. As is usual in these outbreaks, the disease is of a mild type.

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## Canadian Literature

### ORIGINAL CONTRIBUTIONS

#### *Dominion Medical Monthly*, March, 1913:

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|---------------------------------------|-----------------|
| A Case of Gonococcal Septicæmia . . . | A. C. Hendrick. |
| The Cure of Poverty . . . . .         | A. C. E.        |

#### *The Canadian Practitioner and Review*, February, 1913:

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| Some Observations in Anæsthesia . . .                                      | C. W. F. Gorrell. |
| Medical Aspects of Septic Peritonitis . .                                  | John Ferguson.    |
| General Septic Peritonitis . . . . .                                       | S. M. Hay.        |
| General Peritonitis in Gynæcological and<br>Obstetrical Practice . . . . . | B. P. Watson.     |

#### *The Western Medical News*, December, 1912:

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| A Degree in Surgery . . . . . | Editorial. |
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#### *L'Union Médicale du Canada*, February, 1913:

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| Les Devoirs du Médecin auprès d'une<br>Parturiente . . . . . | E. A. René deCotret |
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*Le Bulletin Médical de Québec*, February, 1913:

Les inspecteurs régionaux du Conseil d'Hygiène de la province de Québec .	O. Leclerc.
Prophylaxie de la Syphilis et "606" .	P. V. Faucher.
Observation clinique . . . . .	O. Leclerc.

*The Canadian Journal of Medicine and Surgery*, March, 1913:

Anoci-Association. A new Principle in Operative Surgery . . . . .	G. W. Crile.
Treatment of Diffuse Septic Peritonitis .	H. A. Bruce.
Septicemic Cerebro-Spinal Meningitis .	J. G. Fitzgerald.

*The Canada Lancet*, February, 1913:

The Psychic Effects of Accidents . . . . .	T. A. Williams.
Treatment of Diffuse Septic Peritonitis .	H. A. Bruce.

*The Public Health Journal*, February, 1913:

The point of view in Medical Inspection of Schools . . . . .	W. E. Struthers.
The Prevention of Tuberculosis in the Country . . . . .	H. G. Roberts
The Dentist as a Social Worker . . . . .	A. D. Thornton.
The Vitality of Typhoid Bacilli in Water .	Joseph Race.
Storm and Surface Water Drainage in Re- lation to Sewage Disposal . . . . .	R. R. Knight.
The Sanitation of the Bivouac . . . . .	D. B. Bentley.
Municipal Meat Inspection . . . . .	A. R. B. Richmond

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THE annual meeting of the Ontario Health Officers' Association, will be held in the Parliament Buildings, Toronto, May 29th and 30th. All the medical officers in the province are required to attend this meeting, as provided in Section 42 of the Public Health Act. Arrangements are being made for reduced rates on the principal lines of railway, and a large attendance is expected. The programme of the meeting has not yet been issued.



## Medical Societies

### OTTAWA MEDICO-CHIRURGICAL SOCIETY

A MEETING of the Ottawa Medico-Chirurgical Society was held February 21st, when an interesting address on the physiology of the kidney was given by Professor Brodie of the University of Toronto.

The regular monthly meeting of the Ottawa Medico-Chirurgical Society was held March 7th. The following case was reported by Dr. S. P. Cooke. Patient was injured a few months ago by a falling plank. There was small expansion in right chest, and over base of right lung, posteriorly, there was absence of breath sounds, but a resonant note. On introduction of a needle, air came away freely. Diagnosis: Pneumo-thorax.

The case report was followed by a symposium on Cholelithiasis, in which Dr. Shillington, Dr. Argur, and Dr. Laidlaw took part.

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### THE MEDICINE HAT MEDICAL ASSOCIATION

THE Medicine Hat Medical Association was organized February 1st. On this occasion sixteen members were present. The officers elected were: president, Dr. Charles F. Smith; vice-president, Dr. F. W. Grishaw; secretary-treasurer, Dr. Harold Orr; executive committee: Dr. O. Boyd, and Dr. W. M. Thomas.

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### WINNIPEG MEDICAL SOCIETY

AN amalgamation has taken place between the Winnipeg Medico-Chirurgical Society and the Winnipeg Clinical Society. The new organization has been named the Winnipeg Medical Society. It was felt amongst the profession of the city that a still keener spirit of progress than that which already obtained would be promoted by the union of the two existing societies. Sections representing different branches of specialism are being formed. Arrangements are being made to deal with permanent accommoda-



tion for the Society, and in this respect it is expected that the College of Physicians and Surgeons of Manitoba will extend a helping hand. The following are the officers elected for the present year: president, Dr. J. R. Jones; vice-president, Dr. J. A. Gunn; secretary, Dr. S. Alwyn Smith; treasurer, Dr. Geo. Stephens; trustees, Drs. J. H. Halpenny, J. Lehmann, and R. F. Rorke.

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#### OTTAWA MEDICAL SOCIETY

A REGULAR meeting of the Ottawa Medical Society was held in the Carnegie Library on Friday, January 10th, Dr. Charles W. F. Gorrell, the president, being in the chair. There were forty-one members present.

Dr. W. H. B. Aikins, of Toronto, read a paper entitled, "Radium in Dermatology." The lecture was profusely illustrated by limelight views of cases which had been successfully treated by radium. Several photographs, the originals of which were well-known to some of the members present, were shown on the canvas, and the satisfactory results were easily seen. Sir James Grant, M.D., moved a vote of thanks to the lecturer of the evening. This was seconded by Dr. J. F. Kidd. The president, in presenting to Dr. Aikins the thanks of the society for coming to Ottawa and delivering such an instructive lecture, showed one of his patients, a well-known clergyman of the city, who had been under the care of Dr. Aikins for epithelioma of the tongue. This patient has lately returned from Europe, where he was examined by several eminent surgeons. All were of the opinion that the cure, as effected by Dr. Aikins with radium, was complete.

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#### TORONTO ACADEMY OF MEDICINE

At the regular meeting of the pathological section of the Toronto Academy of Medicine, held on January 24th, Dr. F. W. Ralph gave a demonstration of Wolff and Junghaus's dissolved albumen test for gastric cancer. He had been greatly impressed with the value of this test as used in Ewald's clinic in Berlin, and was now able to report twenty cases of his own. The method consists in making various dilutions of filtered gastric contents after a



test breakfast and adding to each a quantity of phospho-tungstic acid. If a ring forms at the junction of the fluids in a one in four hundred or one in two hundred dilution, the case is almost surely malignant; if the ring forms in the case of the one in one hundred dilution only, it is doubtful; and if present in no dilution, it is benign. Only stomach contents giving a negative reaction to congo red may be used.

Dr. A. C. Hendrick and H. S. Raper reported a case of hæmatocolpos with examination of the arsenic content. A girl, aged fifteen, complained of pain in the back and suppressed menses. Examination revealed a fluid mass in which the uterus was floating. The hymen was present, but was not imperforate, although there was atrophy of the lower end of the vagina. It was suggested that this latter condition was due to the failure of the vaginal cord to become canaliculized and that the hymen had developed from a portion of the cloacal wall. Dr. Raper reported .005 milligrammes of arsenic in the fluid examined. The theory has been advanced (Riese and others) that menstruation is due to the presence of arsenic in the uterine glands, that it is stored up there until it exists in sufficient quantity to produce hyperæmia and necrosis of surface glands and finally the menstrual hæmorrhage. It is supposed that up to puberty the arsenic is used in the processes of growth; during lactation it is secreted in the milk, while in old age it is stored up in various pigmentations. It is probable that the small amount of arsenic found in the case in question was due to the patient's youth.

Dr. Duncan Graham gave a demonstration of a method of isolating typhoid bacteria from urine and fæces. The material is plated on Endo's media and transferred to Russel's double sugar media. This is probably the best method of isolating the typhoid bacillus from those of the intestinal group.

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At the general meeting of the Toronto Academy of Medicine, held on March 4th, Professor James Third, of Queen's University, read a paper entitled, "Some clinical observations on arteriosclerosis." This paper appears in full elsewhere in the JOURNAL.

Dr. R. D. Rudolf, in opening the discussion, said: While Professor Third's paper has covered the field fairly fully, his statistics seem to suggest that there has been an increase in arteriosclerosis in modern times. As a matter of fact, this condition existed among the ancient Egyptians, as a recent examination of mummies has



proved. Probably to-day, as with neurasthenia and appendicitis, we hear more about it. A high blood pressure and arteriosclerosis are not necessarily related. One finds arteriosclerosis without any rise in blood pressure in 50 per cent. of cases, and a high blood pressure frequently exists without any arteriosclerosis that can be detected by clinical examination. The value of potassium iodide is undoubted. Other important points are, the advisability of withholding too much knowledge concerning blood pressure from patients, since hypochondriasis is a common result of not doing so, and venesection. Where headaches, dizziness and other symptoms result from increased blood pressure, the withdrawal of eighteen or twenty ounces of blood frequently gives a relief which is of months' duration.

Dr. T. F. McMahon, speaking on the life assurance aspect of the question, said: The use of the sphygmomonometer has become common during the last five years and many companies are now trying to get blood pressure reports, especially on candidates of over forty years of age. The statistics of Dr. J. W. Fisher, of the Northwestern Mutual, probably the best submitted so far, are decidedly startling and show that the mortality in all cases with abnormally high blood pressure was from 9.3 per cent. to 276.46 per cent. in excess of the general average of the company during the same period. Evidently, from the results of this extensive experience, the use of the sphygmomonometer in life insurance examinations is important. While great care must be taken to do no injustice to those whose blood pressure is abnormally high from transient causes, careful reports on blood pressure will enable the companies to weed out a dangerous class of risks now accepted at ordinary rates.

Dr. V. E. Henderson drew attention to the fact that emotional disturbances have a tendency to increase the secretion of the adrenal bodies and therefore are a remote cause of arteriosclerosis. Bacterial action on end products of digestion result in the formation of histamine from histidine and tyramine from tyrosine. These substances are of a similar nature to adrenalin and will increase blood pressure. Proofs of the results of permanent or intermittent increase of blood pressure are furnished by a series of experiments on animals. In one of these experiments daily compression of the aorta for stated periods of time soon resulted in a marked arteriosclerosis.

Dr. J. S. A. Graham showed a number of x-ray plates in which an increase in the size of the aorta was evident. The majority of



cases in which the dulness in the second interspace was three and a half inches or over, gave a positive Wassermann reaction.

Professor Leathes and Dr. Andrew Macphail also briefly addressed the meeting.

### MONTREAL MEDICO-CHIRURGICAL SOCIETY

THE eighth regular meeting of the Society was held Friday, January 17th, 1913, Dr. D. F. Gurd in the chair.

CASE REPORTS: 1. Cerebellar Abscess of Otitic Origin. Recovery. By Dr. G. H. Mathewson.

2. Style removed from the nasal duct after being forty years *in situ*, with specimen. By Dr. Geo. H. Mathewson.

3. A case of abdominal aneurysm, with specimen. By Dr. C. A. Peters.

PAPER: The paper of the evening was read by Dr. Geo. E. Armstrong on "Prostatectomy with suspension of the bladder."

DISCUSSION. Dr. A. E. Garrow: I have been very much interested and pleased with Dr. Armstrong's excellent paper on prostatectomy, and in discussing it will confine myself to a few points only. In prostatectomy it is my belief that in the majority of cases, the operator, in removing one or more fibro-adenomatous masses leaves behind a thinned-out layer of prostatic tissues which forms an inner lining to the prostatic capsule. In spite of Zuckerkandl's views and teachings in the anatomy and embryology of the prostate, in its morphology I still regard it as a three-lobed gland. The importance of the two-stage operation in patients suffering from renal insufficiency and kidney distension, the result of protracted prostatic obstruction, has been sufficiently emphasized by Dr. Armstrong to-night. A week or two ago I performed suprapubic prostatectomy in a very wiry looking old man, under gas and morphia anæsthesia with but little evidence of shock or disturbance in urinary secretion, but who succumbed very suddenly in forty-eight hours. I think now that a week of suprapubic drainage prior to prostatectomy might have been followed by a happier result. Dr. Armstrong states that in stitching the bladder to the abdominal wall after suprapubic prostatectomy, he believes he succeeds in improving the power of the bladder to empty itself and diminishes the quantity of residual urine. I am inclined to think that when the obstructing masses are removed from the neck of the bladder,



thereby restoring the high level internal meatus to its normal position, the ability of the bladder to empty itself perfectly or imperfectly depends entirely upon the condition of its muscular wall.

Respecting drainage after prostatectomy I have employed the following method with considerable satisfaction for some years. A number eight or nine English soft rubber catheter is passed through the urethra into the bladder and out through the suprapubic wound. The last inch, including the eye, is cut off, and two or three large fenestræ are made in that part of the catheter which occupies the prostatic urethra. That portion of the catheter which projects about half an inch from the suprapubic wound is trans-fixed by a large safety pin which lies transversely to the suprapubic incision, thereby preventing the tube from being pulled out accidentally or otherwise. By this method the bladder and prostatic pouch can be readily irrigated through either end of the catheter and blood clots washed out, and the wound secretions are constantly drained away from the neck of the bladder. Further, if long rubber tubes are attached by glass connections to the bladder and urethral ends of the catheter, the urine is readily conducted to a urinal hanging on the side of the bed and the patient can be kept dry and comfortable. In my own series of prostatectomies only one case has suffered from incontinence, the result of a perineal operation performed many years ago by Alexander's method. The patient is still enjoying good health, but is compelled to wear a rubber urinal. Two years ago after removing a very hard prostate by the suprapubic route, healing was followed by a stricture, which I demonstrated by posterior urethroscopy to be due to a crescentic fold of scar tissue running transversely near the internal meatus, and which was subsequently dealt with by internal urethrotomy and dilatation. This was followed by permanent and perfect recovery.

I have had the good fortune to see Young perform his perineal operation several times, and I think it is the operation of choice in a selected class of cases, though personally I prefer the suprapubic route. A year ago a patient whom Young had operated on with eminently satisfactory results died of acute abdominal disease and came to autopsy. I was very much surprised at the large amount of prostatic tissue still present in the gland.

Dr. William Hutchinson: Dr. Armstrong's results are very interesting, especially since Judd at the Mayos' clinic has been advocating the primary closure of the bladder and draining by means of a catheter in the urethra. I had the opportunity of trying the method during the past year, and found that there were a number



of objections to it. In the first place, it means a one stage operation; in the second place, it requires some one always in attendance, as the bladder has to be washed out every fifteen minutes for twenty-four hours; and in the third place, I found it very difficult to prevent pus from collecting around the catheter. As far as closure of the bladder was concerned the result was perfect. In speaking of carcinoma of the prostate, the statement was made by Geraghty that it always occurred in the fifth lobe. This statement I consider as too sweeping. There is undoubtedly a certain type, scirrhus carcinoma, which may develop there, but this does not apply to the malignant adenoma which probably arises from the seminal vesicles and the adeno-carcinoma. This latter form was seen in a case operated on last year, and here the growth seemed to arise from the anterior lobe. Stricture of the urethra following prostatectomy is not as uncommon as is generally supposed. The usual type is caused by a band of fibrous tissue across the floor of the posterior urethra, but in one of our cases there was a complete ring of fibrous tissue around the internal urethral orifice. This occurred three years after a suprapubic prostatectomy. It was so tight that it required cutting from the bladder side. I think it would be a wise plan to pass a sound one year after operation.

Dr. R. P. Campbell: With regard to the suspension of the bladder which Dr. Armstrong described, and which is the most striking feature of the operation as described by him, I can quite see how the pouch occurs. The bladder normally is suspended by means of the ureters and the fascia which surrounds the ureters, so that where distension occurs a pouching posterior to the trigone is bound to occur. I have always considered it, however, as only essential to drain the bladder when this pouch would disappear with the ensuing muscular contraction. Dr. Armstrong in suspending the bladder in this way undoubtedly gets rid of this pouch, and perhaps more quickly than otherwise would be the case; but the question is, does he not in suspending the bladder in this way make a much shorter fistula into the bladder, and does he not in consequence of the short fistula run the danger of keeping this fistula open for a much longer time? In other words, do we not get a quicker result in leaving the bladder alone and getting a long fistula, than in sewing it to the rectus and forming a short one? As to the condition of the kidneys, patients do not die from the the operation of prostatectomy itself; that is to say, if the kidneys are to be depended on you can almost guarantee that the patient will recover. Everything, in short, depends upon the condition of the



kidneys. In reference to stricture of the internal meatus, I have felt from pathological examination of these specimens that where you have to deal with a pure adenoma of the prostate you run very little danger of having stricture form. If, on the other hand, you have a more fibrous type to deal with, almost a fibroma, or the result of inflammation plus tumour, there is a much greater danger of stricture forming. We have had this exemplified in our clinic in two cases—where, three or four weeks after operation, these patients developed difficulty in micturition. We overcame the stricture by means of Young's prostatic punch and in this way gave relief. I think the true danger of stricture forming really lies in the nature of the condition with which one has to deal.

Dr. C. B. Keenan: I can remember the time when one of our surgeons questioned whether removal of the prostate was a justifiable surgical procedure. Now, from the results shown to-night by Dr. Armstrong, together with the literature of the subject, this question must be answered in the affirmative. Also the cases reported to-night show that the end results obtained by the suprapubic method compare favourably with those obtained by the perineal, and since the former certainly gives the better examination of the bladder it will probably come to be the one of choice. I am very interested in the question of suspension of the bladder by means of sutures, but I think that the scar tissue fulfils the same function in the ordinary suprapubic operation. Cancer of the prostate has been mentioned, and I have always noted that removal of a cancerous prostate gives almost perfect function back to the bladder until death results from metastases in some other part of the body.

Dr. George E. Armstrong: I am very glad that this paper has called forth so much discussion. A number of the speakers, Dr. Garrow and others, mentioned the suturing of the bladder. I have been doing prostatectomies for a long time and I suppose, like others in other fields of work, have been following the fashion of the day. I know one surgeon who simply drops the bladder back and does not put in any tube. I have got better results personally since I began suspending the bladder. When you open the bladder and put your finger in, the trigone is felt away down and you can hardly reach it. You will find that the trigone is brought up by the stay sutures. We take away the normal supports of the bladder and the stay sutures restore or replace these, which we weaken in approaching the bladder. The patient convalesces with a smooth chart. There may be a little rise for a day or two, as the suprapubic wound is closing, but that is all. In twelve cases out of twenty,



there was apparently no residual urine and the average time of closure was sixteen or seventeen days. I certainly could not get as early closing with a long fistula. I cannot keep the catheter in the urethra more than thirty-six hours without exciting urethritis; I have tried it in every way. I have put in catheters of carefully selected sizes and thirty-six hours is about the limit when a mucopurulent discharge commences about the catheter and there is temperature. I do not believe that orchitis will develop unless the patient has had a previous orchitis. I think that the whole question is now well started. There is a great deal of interest at present in the embryology and anatomy of the prostate and it has led to revision of technique, and I believe there will soon develop a much better unanimity of opinion among histologists and pathologists as to the best technique to adopt for the relief of this distressing condition.

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#### EDMONTON MEDICAL SOCIETY

A MEETING of the Edmonton Medical Society was held March 5th. An interesting paper was read on this occasion by Dr. Whitelaw on "Isolation hospital planning and management." The officers elected for the present year are: president, Dr. J. S. Wright; first vice-president, Dr. Malcolmson; second vice-president, Dr. Nicholls; secretary-treasurer, Dr. Jamieson; recording secretary, Dr. Landry; executive committee, Dr. Whitelaw, Dr. Park, and Dr. J. P. McDonald.

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#### PRINCE EDWARD ISLAND MEDICAL ASSOCIATION

THE semi-annual meeting of the Prince Edward Island Medical Association was held at Charlottetown, February 14th, under the presidency of Dr. George Dewar. Among those present were: Drs. Jenkins, Carruthers, H. D. Johnson, Ralph, McMillan, Dewar, J. C. McDonald, McGuigan, McLeod, G. H. Jardine, D. R. Fraser, J. D. McIntyre, Houston, Goodwill, A. McNeill, J. F. McNeill, A. A. McLennan, Tanton, and J. Jardine. At the afternoon session, after the reports of the committees had been read, a paper entitled "The clinical features of the McGee case," was given by Dr. D. F. Fraser and J. D. McIntyre. This was followed by a report of autopsies by Dr. W. J. McMillan. The



evening session commenced with a discussion on pneumonia by Dr. George Carruthers, Dr. Alexander McNeill, and Dr. A. A. McLennan. The discussion was followed by a paper on the treatment of the disease by Dr. S. R. Jenkins and Dr. G. Dewar. The meeting concluded with a report on the Dominion Medical Association, which was read by Dr. Jenkins.

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#### NEW BRUNSWICK MEDICAL COUNCIL

A MEETING of the New Brunswick Medical Council was held March 6th, in the Queen's Hotel, Fredericton. The members present were: Dr. George C. Corbet, Dr. A. F. Emery, Dr. Murray MacLaren, Dr. Thomas Walker, Dr. Stewart Skinner, Dr. S. C. Murray, Dr. James D. Lawson, Dr. A. B. Atherton, and Dr. G. C. Van Wart. The meeting was devoted to routine business. The election of officers resulted as follows: president, Dr. G. C. VanWart, Fredericton; treasurer, Dr. Thomas Walker, St. John; registrar, Dr. Stewart Skinner, St. John. Board of examiners, Dr. W. A. Ferguson, Moncton; Dr. T. D. Walker, St. John; Dr. E. A. McAuley, St. John; Dr. W. A. Christie, St. John; Dr. W. C. Crocket, Fredericton.

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#### SOCIETE MEDICALE DE QUEBEC

THE officers elected for the present year are: president, Dr. Adj. Savard; first vice-president, Dr. P. C. Dagneau; second vice-president, Dr. P. V. Faucher; secretary, Dr. E. Couillard; treasurer, Dr. J. DeVarennnes.

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A LODGE meeting of medical Freemasons who are members of the Seventeenth International Congress of Medicine will be held on Monday, August 11th, 1913, in the Grand Temple at Freemasons' Hall, Great Queen Street, London. The Most Worshipful the Pro Grand Master, the Right Hon. Lord Ampthill, will open the Lodge at 5 p.m., and close it at 6 p.m. A reception will be held at 4 p.m. in the Connaught Rooms, adjoining Freemasons' Hall. It is hoped that all brethren who wish to be present will communicate with the grand secretary of their own jurisdiction as soon as possible, in order that suitable arrangements may be made.